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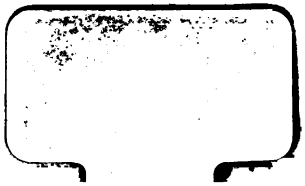

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TABLES

FOR

BATE'S

PATENT SACCHAROMETER

WITH

DIRECTIONS FOR THEIR USE IN ASCERTAINING THE VALUES OF

WORT OR WASH

AND

LOW WINES.

By R. B. BATE,

MATHEMATICAL INSTRUMENT MAKER TO THE HONOURABLE BOARD OF EXCISE.

LONDON:

PRINTED FOR THOMAS ODEMCY BUSS,

(*Successor to R. B. Bate*)

AND SOLD BY HIM (WITH THE SACCHAROMETER)

AT No. 33, HATTON GARDEN, E.C.

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INTRODUCTION.

THE infusion of malt, which is called Wort, is heavier than water according to the quantity of saccharine matter which it holds in solution; the weight or gravity of Wort is therefore a criterion of its value, which, besides being determinable with the greatest ease and expedition, is always sufficiently accurate for the purposes of Commerce or Revenue.

The term Gravity has been by some applied to Worts, as expressive of their excess or difference of weight above the weight of Water; by others, to express the weight of saccharine matter in a Barrel of them; and again by others, to express the excess in their weight above that of an equal bulk of Water in one thousandth parts of the weight of the latter, and these parts are called "Degrees of Gravity;" they are, however, only correctly so when they refer to the weight of *pure* Water at a fixed heat or Temperature, and these comparative weights of equal measures are then *Specific* Gravities.

The Specific Gravity of Wort may be obtained, like that of any other liquid, from the weight which a solid body loses by immersion in it, compared with the weight which the solid loses in Water, and is the quotient of the weight lost in the Wort, divided by the weight lost in the Water. The Specific Gravity of liquids is also ascertained by successively filling a small vessel to the same height, and weighing the contents; this vessel is called the Weighing-bottle: but these methods, each requiring the employment of a good Balance, are too tardy and expensive for general adoption.

An instrument, the reverse of the Weighing-bottle, was therefore introduced, which being made to float at a given point in Water, was, by the addition of Weights at the top of it, made to sink to the same depth in other liquids, and thus always displaced an equal bulk or measure of each liquid; this Instrument is named a Gravimeter; and when its weight in Water is called Unity (the accompanying Weights being

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made decimal parts of such weight) the *total* weight, required in each liquid, will at once indicate its Specific Gravity.*

This Instrument, though in its simple form most admirably adapted to scientific purposes, was found incompatible with the dispatch required in business, particularly in the use of the smaller weights, and a Scale of Divisions was introduced to represent them. This apparently inconsiderable change also introduced the error which has been hitherto considered an insurmountable impediment to the perfection of such an Instrument; a familiar description of this error will now be attempted.

The Instrument, when furnished with the Scale of Divisions, to enable it to act through a limited range of Specific Gravities, being transferred from one liquid into another of *greater* Specific Gravity without its *weight* being *increased*, could not sink so low: its previous application thus became reversed; it no longer determined the Specific Gravities of the liquids under trial by the comparative *weights* of the *same bulk* or measure of them, but by the comparative *bulks* of the *same weight*† of such liquids; and as the bulk immersed diminished, the Divisions of the Scale, the values of which are always certain proportions of this bulk, necessarily diminished with it, and therefore no two Divisions, if accurate, could be of equal length in any part of the range of the Scale.

Again, each successive range of Scale, being required to express the *same* aliquot part of the Specific Gravity 1000, the additions of weight, equivalent to such range, successively required to sink the Scale to its first point or zero, again became the difference in the weight of *equal* bulks of the liquids; and being equal to one another, these *equal* weights or differences became less in proportion to the succeeding ranges of Specific Gravity;‡ therefore no two Scales, or equal number of Divisions, could be of equal length in any part of the range of the Instrument.§

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* Some of these Instruments being lately made to displace exactly 1000 troy grains of pure water, their accompanying Weights have the advantage of being grains also; a very slender wire is used to receive the index point, by means of which the Instrument is rendered susceptible to the 100th part of a grain, which represents an unit in the fifth decimal place of figures.

† All floating bodies sink till they have displaced *their own weight* of the liquids, and rest in a state of equilibrium.

‡ As 30, the common difference in the Saccharometer, becomes a less proportion of 1030 and 1060, of 1060 and 1090, &c. than of 1000 and 1030.

§ This may be exemplified by immersing an Hydrometer, or any such Instrument (which floats in water at a point marked near the top of the Stem), into liquor of 1030 Specific Gravity, and marking upon the Stem the new point, which rests in the surface of the liquor; then placing it into

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The mind, once forcibly impressed with this conviction, will easily comprehend the origin of the difficulties which have hitherto prevented the construction of a Saccharometer at once *convenient* and truly *accurate;* the single Scale, which was capable of *accuracy,* was found *inconvenient* on account of its great length; and the introduction of a more *convenient* Scale, adapted to a part only of the necessary range of Specific Gravity, with Weights to sink the Scale in Worts the Specific Gravities of which exceeded the limits of its first range, also introduced this *inaccuracy,* which increased with every repetition of the Scale.

The *convenience,* however, of this diminished length of Scale was found too great to be relinquished, and attempts were made to elude the error which it introduced by giving the Stem a variety of faces, each containing a set of Divisions shorter than its preceding: this construction, while each set of Divisions was only once employed, was like the first, capable of *accuracy;* but as the increasing the number of faces necessarily increased the bulk of the Stem, the sensibility of the Instrument was thereby diminished; and when, on this account, two or three faces only were employed, the trifling diminution of length thus afforded was no longer an equivalent for the *inconvenience* attending a variety of Scales which were found always liable to be mistaken one for the other in reading off.

In despair of combining *accuracy* with *convenience* in the Saccharometer, it was thought advisable to make some sacrifice of each, by adopting a Stem with two or three different sets of Divisions, each repeated a certain number of times, and by carefully selecting a due mean for the length of each of these Scales, or sets of Divisions, with corresponding compensations in the Weights employed through the repetitions of this Scale on each side of the chosen mean, to disperse the error, and thus obtain a near approximation to the truth. This was all that had been effected previously to the construction of the Saccharometer now submitted.

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liquor of 1090 Specific Gravity, and loading its top until the original point for Water be brought again into the surface (when the Instrument will correctly represent the Specific Gravity 1090); if it be transferred, thus loaded, into liquor of 1120 Specific Gravity, the last new point which rests in the surface will be found somewhat above the point at which it before rested in 1030; and the bulk contained between these two points will be the difference in the bulks of the same weight of the two liquids; which weight is that of a portion of the liquor of 1030 Specific Gravity, equal to the bulk of the stem contained between the upper point, and the point first marked below it.

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The invention of this construction arose from the consideration, that as the Saccharometer could not be accurate without a distinct Scale, or set of Divisions, for each range of Specific Gravity, and that this would be perfectly accomplished if the Instrument were furnished with a *change* of Stems, each bearing a Scale *shorter* than the preceding; so would the same perfection be attained by transferring the *same* Stem to different Instruments, each *larger* than the preceding in the same proportion.

It then followed that, to preserve the *same* length of Scale in the *same* Instrument, that part of it below the Stem should be successively augmented at each new range of Specific Gravity by such a bulk as would duly increase its original proportion to the same set of Divisions; upon investigating this principle, it most satisfactorily appeared that all the errors which had hitherto so much embarrassed the construction of the Saccharometer, would be annihilated at once by the simple augmentation of the part immersed by a bulk EQUAL TO THE WHOLE BULK OF THE DIVIDED SCALE, at every repetition of that Scale.

A very slight further consideration led to the conclusion that, as an addition to the weight of the Instrument is also required at the commencement of each new range of Specific Gravity, these augmentations of bulk and weight should be combined, so that both may be applied at once; and it readily occurred that a change of the balancing Poise at the lower Stem would best effect this: a simple mode of attaching these Poises was not so obvious, and repeated attempts were made by the inventor to accomplish it in such a manner as should be free from every objection; this, however, might not have been yet effected, but for the kind suggestion of a distinguished scientific person, eminent for the perfection of his productions, to whom the inventor is indebted for the truly unobjectionable method which he now employs.

It will be obvious that the additional Poises each require such precise adjustment to the first bulk and weight of the Saccharometer as not only to render it a new Instrument at each change of Poise, but likewise so exactly in accordance with the first as to admit of the *same* set of Divisions indicating the Specific Gravity of the Wort throughout the range of each Poise with perfect accuracy: and that whilst this Instrument answers every purpose of five complete Saccharometers, each successively taking up the range of Specific Gravity at the point where the range preceding ends, it nevertheless performs all this without the least embarrassment or confusion,

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and has the advantage of being comprised within the bulk of the smallest Saccharometer, with the same range of Scale, ever offered to the public.

However simple these improvements of the Instrument may now appear, they yet involve sufficient complication to render their accurate execution very difficult in the beginning; all difficulties are now, however, completely surmounted, and without neglecting the strength and durability of the several parts, great care has been taken to secure, by their figure the utmost sensibility of motion and freedom from the liability of retaining air; whilst by the further invention of a new method of adjustment, the execution of the whole is rendered as simple and perfect as its theory.

To complete the perfection of the Saccharometer, it became necessary to institute a course of accurate experiments upon the Expansion of the Worts; upon the true quantity of Solid Extract which they produce, and upon the Expansions of the fermented Wash from Worts of different strengths. In the experiments, as well as in the compilation of the Tables from them, every circumstance which, in the most remote manner, could affect the result, was taken account of, and carefully allowed for: nothing was taken for granted or guessed at, but on the contrary, great diligence* and scrupulous exactness were employed, and neither expense nor labour spared in providing the necessary materials and apparatus. The following Tables accordingly furnish the most accurate results, and it is believed, present the only true estimate of the Concentrations of Worts, and the first notice of the Expansions of the *fermented* Worts or Wash, which are very unexpectedly found to be less than those of the *same* Worts before fermentation.

Wash being occasionally attenuated below the Specific Gravity of Water, it has been thought proper to give an additional range to the Saccharometer for the use of Distillers; this extension of the capacity of the Instrument enables it to show the strength of Low Wines; a Table is therefore given in which the proportion by bulk which they contain of Proof Spirit is had by inspection, from the Temperature of the Low Wines and the Indication of the Saccharometer therein.

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* The actual experiments on density in the investigation of Expansion alone amounted to 346, many of which could be estimated to an unit in the 5th decimal place of figures; and the actual number of weighings in the experiments on Extract were 290. The calculations for deriving the Tables from the experiments, and adapting them to ordinary use, were proportionably numerous and complete.

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DESCRIPTION

OF THE

SACCHAROMETER.

The Instrument is composed of brass; the Ball or Float being a circular Spindle, in the opposite ends of which are fixed a Stem and a Loop: the Stem bears a Scale of Divisions numbered downwards from the first to 30; these Divisions, *which are laid down in an original manner*, observe a diminishing progression according to true principles (a familiar description of which is attempted in the Introduction); therefore each Division *correctly* indicates the one-thousandth part of the Specific Gravity of Water; and further, by the *alteration*, made in the BULK of the *Saccharometer* at every CHANGE of POISE, each of the same Divisions continues to indicate *correctly* the said one-thousandth part throughout—The distinguishing property of this Saccharometer, and which gives absolute perfection to its construction.

There are usually five Poises, or Weights, engraved 970 1000, 1030, &c.; these Poises are of different sizes, each, comprising precisely such an augmention of bulk, beyond the first, as the increase of its number indicates, viz., 30 *Divisions of the Scale of the Stem;* the Poise 1030 containing 30 Divisions more than the Poise 1000; 1060 containing 60 more, and so on; so that whatever Poise be used with the Instrument, the sum of this number and the Division of the Scale which rests in the surface of the liquor under trial, indicates the Specific Gravity of such liquor: and the sum of these Divisions themselves (or the difference between 1000 and the Specific Gravity of Wort or Wash, as shown by this Saccharometer), denotes the strength of such Wort or Wash in terms which, by the Act of the 4th Geo. IV. cap. 94, are called "Degrees of Gravity."

The Poises severally contain the augmentations of weight necessary to sink the divided Scale to the surface of the liquor,

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as also noticed in the Introduction, and are to be attached to the Saccharometer by their pins, which are fitted to a conical hole in the lower extremity of the Loop; upon the insertion of the pin into this hole, no force is to be employed, but a *slight* pressure merely, for the purpose of ensuring contact.

THE TABLES.

The Saccharometer being adjusted to float at Zero or 0 in Distilled Water, of 60° Temperature, with its Poise 1000 (which expresses the Specific Gravity of such Water), its Indications are only true Specific Gravities, or Degrees of Gravity, when the liquor is also of 60° Temperature, for which reason the term Apparent Gravity is applied to these Indications. To obviate the necessity of bringing each sample examined to that Temperature, two Tables are given with the Instrument, showing the Correction to be made for every *other* Temperature. Table I. gives these Corrections in whole Degrees of Gravity for every 2° of Temperature from 50° to 150°, and for every ten Divisions of the Scale. Table II. gives these Corrections to tenth parts of a Division, or of a Degree of Gravity, and to every five Divisions of the Scale.

A third Table is also given, in which the corrected Degree of Gravity is had by mere inspection from the Temperature of the Wort and the Indication of the Saccharometer in it: this Table, giving the Degree of Gravity for every Apparent Gravity or Division of the Scale, is necessarily voluminous and occupies 16 pages. It will be observed that its results, when added to 1000, as noticed in the preceding page, become Specific Gravities.

Table IV. consists of eight columns; the 1st contains the Specific Gravity of Worts for each Division of the Saccharometer; the 2d exhibits the difference between the weight of a Barrel of Wort of each Specific Gravity and the weight of such a Barrel of pure Water, in lbs. avoirdupois.* The remainder of the Table is derived from original experiments

* This excess of weight is by Richardson termed the "Gravity;" and being added to 366.2 lbs. (the weight of a Barrel of pure Water at 60°, according to late experiments by Authority), will give the total weight of a Barrel of each Wort.

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upon Solid Extract, or Saccharine Matter: the 3d, 4th, 5th, and 6th columns, exhibiting the weight thereof contained in a Beer Barrel*, a Beer Gallon, a Wine Gallon, and an Imperial Gallon (as recommended by the Commissioners of Weights and Measures), of Wort of each Specific Gravity; all in lbs. avoirdupois. The 7th column shows the proportion by weight of Extract contained in each Wort; these proportions are therefore factors whereby any weight of Wort, being multiplied, the product will be the weight of solid Extract in such Wort. The 8th column gives the corresponding "Degrees of Gravity."

Table V. exhibits the absolute or total Expansions of Worts by Bulk or Measure in decimal parts of such Measure; or, in other words, their *diminution* of bulk in being *cooled* from Temperatures above 60° to that point, and their *increase* of bulk when *warmed* to 60° from lower Temperatures.

Two other Tables are also given, the use of which being exclusively confined to the Distillery, will be described hereafter.

TO USE THE SACCHAROMETER.

First, immerse the Thermometer, and stir the sample with it, observing that its Temperature be below 150°; attach the Poise, as directed in the description, to the Loop of the Instrument and dip the Saccharometer into the liquor as far as to the bottom of the Stem; then raising it again, return it gently into the Sample; press it about a Division lower than the point at which it is disposed to rest, be careful to avoid disturbing it on removing the finger, and observe the linear division nearest to the surface of the liquor when at rest; the number of which Division, added to the number of the Poise employed, will give the Apparent Gravity of the Sample. Immediately observe the Temperature by the Thermometer, which must remain in the Sample for that purpose, and under that Temperature find the Correction opposite the Apparent Gravity in Table I. or II., which further added† thereto, will give the Specific Gravity of the Sample. Or refer to

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* Usually called by Brewers the "lbs. wt. per Barrel."

† The Corrections are always to be *added* except for Temperatures below 60°, where they must be *deducted*, as implied by the sign — prefixed to each.

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Table III., where the Degree of Gravity will be had by mere inspection; and which, added to 1000, will show the Specific Gravity of the Sample.

Examples.

If the Poise 1060 be employed, and the Saccharometer float with the linear division 5 nearest to the surface of the liquor, the Apparent Gravity will be 1065; if it float with division 15 nearest to the surface, the Apparent Gravity will be 1075; if division 22 be nearest to the surface, the Apparent Gravity will be 1082, and so on: then, supposing the Temperature to be 100°, the Corrections will be had from Table I. thus, 100° of Temperature gives for Apparent Gravity 1065 (which falls between 1060 and 1070) + 6=1071: the same Temperature gives for 1075 also + 6=1081: and for 1082 + 7=1089, Specific Gravity.

When greater accuracy is required, the precise point at which the level surface of the liquor cuts the Scale, must be observed, and the Correction taken from Table II.; thus, suppose with the Poise 1060, the Saccharometer float with division 24 above the surface, and that the space above be estimated by the eye to be half a division; the Apparent Gravity will then be 1084·5 and the Correction in Table II. for this Apparent Gravity will be 6.5 for 100° Temperature. Then 1084.5+6.5 gives 1091 for the Specific Gravity. The precise Temperature of the sample should in these cases also be observed, and the Correction proportioned accordingly.

But the true Degree of Gravity is shown at once in Table III.; thus, the Saccharometer indicating the Apparent Gravity of a sample of Wort to be 1067 at 108° Temperature, opposite 1067 and under 108°, is had 74.9, the true Degree of Gravity; and 1000 added thereto gives 1074.9, the Specific Gravity.

The Saccharometer is considered to be amply supplied with five Poises; the Tables, however, comprise another range of Indication, viz. from 1120 to 1150, for which an additional Poise may be at any time supplied: it is a valuable property of this Instrument, that its number of ranges and Poises may be extended, almost indefinitely, without diminishing its accuracy and simplicity in use

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THE

TABLES.

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TABLE I.—For correcting the APPARENT GRAVITY* of WORT on account of Temperature.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
980																											980
990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	990
1000	—	—	—	—	—	—	—	—	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	1000
1010	—1	—	—	—	—	—	—	—	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	1010
1020	—1	—	—	—	—	—	—	—	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	1020
1030	—1	—1	—	—	—	—	—	—	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	6	1030
1040	—1	—1	—	—	—	—	—	—	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	6	1040
1050	—1	—1	—	—	—	—	—	—	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	6	1050
1060	—1	—1	—1	—	—	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	1060
1070	—1	—1	—1	—	—	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	1070
1080	—1	—1	—1	—	—	—	—	—	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5	6	6	6	1080
1090	—1	—1	—1	—	—	—	—	—	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7	1090
1100	—1	—1	—1	—	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7	1100
1110	—1	—1	—1	—	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	4	5	5	6	6	6	7	1110
1120	—1	—1	—1	—1	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	5	5	5	6	6	7	7	1120
1130	—1	—1	—1	—1	—	—	—	1	1	1	1	2	2	2	3	3	3	4	4	5	5	5	6	6	7	7	1130
1140	—1	—1	—1	—1	—	—	—	1	1	1	1	2	2	2	3	3	4	4	4	5	5	6	6	6	7	7	1140
1150	—1	—1	—1	—1	—	—	—	1	1	1	2	2	2	3	3	3	4	4	4	5	5	6	6	7	7	7	1150
TEMPERAT.[22]	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMPERAT.[21]

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TABLE I.—(Continued).

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
980	—	—	—	—	—	—	—	—	—	—	—	—	10	10	11	11	12	12	12	13	13	14	15	15	16	16	980
990	5	6	6	6	7	7	7	8	8	9	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	990
1000	5	6	6	6	7	7	8	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	1000
1010	5	6	6	7	7	7	8	8	9	9	9	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	1010
1020	6	6	6	7	7	8	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	18	1020
1030	6	6	6	7	7	8	8	9	9	9	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	18	1030
1040	6	6	7	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	18	1040
1050	6	6	7	7	8	8	9	9	9	10	10	11	11	12	12	13	13	14	15	15	16	16	17	17	18	19	1050
1060	6	7	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	18	19	1060
1070	6	7	7	8	8	9	9	9	10	10	11	11	12	12	13	13	14	15	15	16	16	17	18	18	19	19	1070
1080	7	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	18	19	19	20	1080
1090	7	7	8	8	8	9	9	10	10	11	11	12	12	13	14	14	15	15	16	16	17	18	18	19	19	20	1090
1100	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	18	19	19	20	21	1100
1110	7	7	8	8	9	9	10	10	11	11	12	12	13	14	14	15	15	16	16	17	18	18	19	20	20	21	1110
1120	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	18	19	19	20	21	21	1120
1130	7	8	8	9	9	10	10	11	11	12	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	22	1130
1140	7	8	8	9	9	10	10	11	11	12	13	13	14	14	15	15	16	17	17	18	19	19	20	21	21	22	1140
1150																											1150
TEMPERATURE	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMPERATURE

Note. When the Apparent Gravity shown by the Saccharometer (instead of falling *between*) falls exactly *in* any of the numbers in the marginal Columns of this Table, take the upper or smallest correction appertaining to such number. Ex., for 1020 at 100° Temperature, take the correction 5; for 1050, take 6; and so on.

TABLE II.—For more accurately correcting the APPARENT GRAVITY* of WORT on account of Temperature.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	985
990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.1	990
995	—	—	—	—	—	—	.2	.4	.6	.8	1.0	1.2	1.4	1.7	1.9	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.8	5.2	995
1000	–.5	–.5	–.4	–.3	–.2	—	.2	.4	.6	.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.7	3.0	3.3	3.6	3.9	4.3	4.6	4.9	5.3	1000
1005	–.5	–.5	–.4	–.3	–.2	—	.2	.4	.6	.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	5.0	5.3	1005
1010	–.6	–.5	–.4	–.3	–.2	—	.2	.4	.6	.8	1.0	1.3	1.5	1.8	2.0	2.3	2.6	2.8	3.1	3.4	3.7	4.0	4.4	4.7	5.0	5.4	1010
1015	–.6	–.5	–.4	–.3	–.2	—	.2	.4	.6	.8	1.0	1.3	1.5	1.8	2.0	2.3	2.6	2.9	3.2	3.5	3.8	4.1	4.4	4.8	5.1	5.5	1015
1020	–.6	–.5	–.4	–.3	–.2	—	.2	.4	.6	.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.9	3.2	3.5	3.8	4.1	4.5	4.8	5.2	5.5	1020
1025	–.6	–.6	–.4	–.3	–.2	—	.2	.4	.6	.8	1.1	1.3	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.9	5.2	5.6	1025
1030	–.7	–.6	–.5	–.3	–.2	—	.2	.4	.6	.9	1.1	1.3	1.6	1.9	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.3	4.6	5.0	5.3	5.7	1030
1035	–.7	–.6	–.5	–.3	–.2	—	.2	.4	.6	.9	1.1	1.4	1.6	1.9	2.2	2.4	2.7	3.0	3.3	3.7	4.0	4.3	4.7	5.0	5.4	5.7	1035
1040	–.7	–.6	–.5	–.3	–.2	—	.2	.4	.6	.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.4	4.7	5.1	5.5	5.8	1040
1045	–.7	–.6	–.5	–.4	–.2	—	.2	.4	.7	.9	1.2	1.4	1.7	1.9	2.2	2.5	2.8	3.1	3.4	3.8	4.1	4.5	4.8	5.2	5.5	5.9	1045
1050	–.8	–.7	–.5	–.4	–.2	—	.2	.4	.7	.9	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.5	3.8	4.2	4.5	4.9	5.2	5.6	6.0	1050
1055	–.8	–.7	–.5	–.4	–.2	—	.2	.4	.7	.9	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.6	3.9	4.2	4.6	4.9	5.3	5.7	6.1	1055
1060																											1060
TEMPERAT^RE	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMPERAT^RE

TABLE II.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
985	—	—	—	—	—	—	—	—	—	—	—	—	—	10.2	10.7	11.1	11.6	12.0	12.5	13.0	13.5	14.1	14.6	15.1	15.7	16.2	985
990	5.1	5.5	5.8	6.2	6.6	6.9	7.3	7.7	8.1	8.5	9.0	9.4	9.8	10.3	10.8	11.2	11.7	12.2	12.7	13.2	13.7	14.2	14.7	15.3	15.8	16.4	990
995	5.2	5.5	5.9	6.3	6.6	7.0	7.4	7.8	8.2	8.6	9.1	9.5	10.0	10.4	10.9	11.3	11.8	12.3	12.8	13.3	13.8	14.4	14.9	15.5	16.0	16.6	995
1000	5.3	5.6	6.0	6.3	6.7	7.1	7.5	7.9	8.3	8.8	9.2	9.6	10.1	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.1	15.6	16.2	16.8	1000
1005	5.3	5.7	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.9	9.3	9.8	10.2	10.7	11.1	11.6	12.1	12.6	13.1	13.6	14.2	14.7	15.3	15.8	16.4	16.9	1005
1010	5.4	5.8	6.1	6.5	6.9	7.3	7.7	8.1	8.5	9.0	9.4	9.9	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.9	15.4	16.0	16.6	17.1	1010
1015	5.5	5.8	6.2	6.6	7.0	7.4	7.8	8.2	8.6	9.1	9.5	10.0	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.5	15.0	15.6	16.2	16.7	17.3	1015
1020	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.2	9.6	10.1	10.5	11.0	11.5	12.0	12.5	13.0	13.6	14.1	14.6	15.2	15.8	16.3	16.9	17.5	1020
1025	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.3	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.2	13.7	14.3	14.8	15.4	15.9	16.5	17.1	17.7	1025
1030	5.7	6.1	6.4	6.8	7.2	7.6	8.1	8.5	8.9	9.4	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.9	14.4	15.0	15.5	16.1	16.7	17.2	17.8	1030
1035	5.7	6.1	6.5	6.9	7.3	7.7	8.2	8.6	9.1	9.5	10.0	10.4	10.9	11.4	11.9	12.4	12.9	13.5	14.0	14.6	15.1	15.7	16.2	16.8	17.4	18.0	1035
1040	5.8	6.2	6.6	7.0	7.4	7.8	8.3	8.7	9.2	9.6	10.1	10.6	11.0	11.5	12.0	12.6	13.1	13.6	14.2	14.7	15.3	15.8	16.4	17.0	17.6	18.2	1040
1045	5.9	6.3	6.7	7.1	7.5	7.9	8.4	8.8	9.3	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.2	13.8	14.3	14.9	15.4	16.0	16.6	17.2	17.8	18.4	1045
1050	6.0	6.4	6.8	7.2	7.6	8.0	8.5	8.9	9.4	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.4	13.9	14.5	15.0	15.6	16.2	16.8	17.4	18.0	18.6	1050
1055	6.1	6.5	6.9	7.3	7.7	8.1	8.6	9.0	9.5	10.0	10.4	10.9	11.4	11.9	12.4	13.0	13.5	14.1	14.6	15.2	15.8	16.3	16.9	17.5	18.1	18.8	1055
1060																											1060
TEMPERAT.RE	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMPERAT.RE

* See Note to TABLE I.

TABLE II.—(Continued).

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1060	- .8	- .7	-.6	-.4	-.2	—	.2	.5	.7	1.0	1.2	1.5	1.7	2.0	2.3	2.6	3.0	3.3	3.6	4.0	4.3	4.7	5.0	5.4	5.8	6.2	1060
1065	- .9	- .7	-.6	-.4	-.2	—	.2	.5	.7	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0	4.4	4.7	5.1	5.5	5.9	6.3	1065
1070	- .9	- .7	-.6	-.4	-.2	—	.2	.5	.7	1.0	1.3	1.5	1.8	2.1	2.4	2.7	3.1	3.4	3.7	4.1	4.4	4.8	5.2	5.5	5.9	6.3	1070
1075	- .9	- .8	-.6	-.4	-.2	—	.2	.5	.7	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.8	4.1	4.5	4.9	5.2	5.6	6.0	6.4	1075
1080	- .9	- .8	-.6	-.4	-.2	—	.2	.5	.7	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.5	3.8	4.2	4.5	4.9	5.3	5.7	6.1	6.5	1080
1085	-1.0	- .8	-.6	-.4	-.2	—	.2	.5	.8	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.2	3.5	3.9	4.2	4.6	5.0	5.4	5.8	6.2	6.6	1085
1090	-1.0	- .8	-.7	-.5	-.2	—	.3	.5	.8	1.0	1.3	1.6	1.9	2.2	2.6	2.9	3.2	3.6	3.9	4.3	4.7	5.0	5.4	5.8	6.2	6.6	1090
1095	-1.0	- .9	-.7	-.5	-.2	—	.3	.5	.8	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.3	3.6	4.0	4.3	4.7	5.1	5.5	5.9	6.3	6.7	1095
1100	-1.0	- .9	-.7	-.5	-.2	—	.3	.5	.8	1.1	1.4	1.7	2.0	2.3	2.6	3.0	3.3	3.7	4.0	4.4	4.8	5.2	5.6	6.0	6.4	6.8	1100
1105	-1.1	- .9	-.7	-.5	-.2	—	.3	.5	.8	1.1	1.4	1.7	2.0	2.3	2.7	3.0	3.4	3.7	4.1	4.4	4.8	5.2	5.6	6.0	6.5	6.9	1105
1110	-1.1	- .9	-.7	-.5	-.3	—	.3	.5	.8	1.1	1.4	1.7	2.0	2.4	2.7	3.0	3.4	3.7	4.1	4.5	4.9	5.3	5.7	6.1	6.5	7.0	1110
1115	-1.1	- .9	-.7	-.5	-.3	—	.3	.5	.8	1.1	1.4	1.7	2.1	2.4	2.7	3.1	3.4	3.8	4.2	4.6	5.0	5.4	5.8	6.2	6.6	7.1	1115
1120	-1.2	-1.0	-.8	-.5	-.3	—	.3	.5	.8	1.1	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8	4.2	4.6	5.0	5.4	5.8	6.3	6.7	7.1	1120
1125	-1.2	-1.0	-.8	-.5	-.3	—	.3	.6	.9	1.2	1.5	1.8	2.1	2.5	2.8	3.2	3.5	3.9	4.3	4.7	5.1	5.5	5.9	6.3	6.8	7.2	1125
1130	-1.2	-1.0	-.8	-.5	-.3	—	.3	.6	.9	1.2	1.5	1.8	2.1	2.5	2.8	3.2	3.6	3.9	4.3	4.7	5.1	5.5	6.0	6.4	6.8	7.3	1130
1135	-1.2	-1.0	-.8	-.5	-.3	—	.3	.6	.9	1.2	1.5	1.8	2.2	2.5	2.9	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	6.5	6.9	7.4	1135
1140	-1.3	-1.1	-.8	-.6	-.3	—	.3	.6	.9	1.2	1.5	1.9	2.2	2.6	2.9	3.3	3.6	4.0	4.4	4.8	5.2	5.7	6.1	6.5	7.0	7.4	1140
1145	-1.3	-1.1	-.8	-.6	-.3	—	.3	.6	.9	1.2	1.6	1.9	2.2	2.6	2.9	3.3	3.7	4.1	4.5	4.9	5.3	5.7	6.2	6.6	7.1	7.5	1145
1150																											1150
TEMPERATURE	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMPERATURE

TABLE II.—(Concluded.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1060	6.2	6.6	7.0	7.4	7.8	8.2	8.7	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.7	14.2	14.8	15.3	15.9	16.5	17.1	17.7	18.3	18.9	1060
1065	6.3	6.7	7.1	7.5	7.9	8.4	8.8	9.3	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.3	13.8	14.4	14.9	15.5	16.1	16.7	17.3	17.9	18.5	19.1	1065
1070	6.3	6.7	7.2	7.6	8.0	8.5	8.9	9.4	9.8	10.3	10.8	11.3	11.8	12.3	12.9	13.4	14.0	14.5	15.1	15.7	16.2	16.8	17.4	18.1	18.7	19.3	1070
1075	6.4	6.8	7.2	7.7	8.1	8.6	9.0	9.5	10.0	10.4	10.9	11.4	11.9	12.5	13.0	13.5	14.1	14.7	15.2	15.8	16.4	17.0	17.6	18.2	18.9	19.5	1075
1080	6.5	6.9	7.3	7.8	8.2	8.7	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.7	14.2	14.8	15.4	16.0	16.6	17.2	17.8	18.4	19.0	19.7	1080
1085	6.6	7.0	7.4	7.9	8.3	8.8	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.3	13.8	14.4	15.0	15.5	16.1	16.7	17.3	18.0	18.6	19.2	19.9	1085
1090	6.6	7.1	7.5	8.0	8.4	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.4	12.9	13.4	14.0	14.6	15.1	15.7	16.3	16.9	17.5	18.1	18.8	19.4	20.1	1090
1095	6.7	7.2	7.6	8.1	8.5	9.0	9.4	9.9	10.4	10.9	11.4	12.0	12.5	13.0	13.6	14.1	14.7	15.3	15.9	16.5	17.1	17.7	18.3	18.9	19.6	20.2	1095
1100	6.8	7.2	7.7	8.1	8.6	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.2	13.7	14.3	14.9	15.4	16.0	16.6	17.2	17.8	18.5	19.1	19.8	20.4	1100
1105	6.9	7.3	7.8	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.8	13.3	13.9	14.4	15.0	15.6	16.2	16.8	17.4	18.0	18.7	19.3	20.0	20.6	1105
1110	7.0	7.4	7.9	8.3	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.4	12.9	13.5	14.0	14.6	15.2	15.7	16.3	16.9	17.6	18.2	18.8	19.5	20.1	20.8	1110
1115	7.1	7.5	8.0	8.4	8.9	9.4	9.9	10.4	10.9	11.4	11.9	12.5	13.0	13.6	14.1	14.7	15.3	15.9	16.5	17.1	17.7	18.4	19.0	19.7	20.3	21.0	1115
1120	7.1	7.6	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.1	12.6	13.2	13.7	14.3	14.9	15.4	16.0	16.6	17.3	17.9	18.5	19.2	19.8	20.5	21.2	1120
1125	7.2	7.7	8.1	8.6	9.1	9.6	10.1	10.6	11.1	11.6	12.2	12.7	13.3	13.8	14.4	15.0	15.6	16.2	16.8	17.4	18.1	18.7	19.4	20.0	20.7	21.4	1125
1130	7.3	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.3	12.8	13.4	14.0	14.5	15.1	15.7	16.3	16.9	17.6	18.2	18.9	19.5	20.2	20.9	21.5	1130
1135	7.4	7.8	8.3	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.4	12.9	13.5	14.1	14.7	15.3	15.9	16.5	17.1	17.7	18.4	19.0	19.7	20.4	21.0	21.7	1135
1140	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	12.0	12.5	13.1	13.6	14.2	14.8	15.4	16.0	16.6	17.3	17.9	18.6	19.2	19.9	20.5	21.2	21.9	1140
1145	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.1	12.6	13.2	13.8	14.4	14.9	15.5	16.2	16.8	17.4	18.1	18.7	19.4	20.0	20.7	21.4	22.1	1145
1150																											1150
TEMPERATR	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMPERATR

TABLE III.—Showing the TRUE GRAVITY of WORT by Inspection,

from the INDICATIONS of the SACCHAROMETER and THERMOMETER therein.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.1	995
996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.2	.5	.8	1.2	996
997	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.2	.5	.9	1.2	1.5	1.8	2.2	997
998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.2	.4	.7	1.0	1.3	1.6	1.9	2.2	2.5	2.9	3.2	998
999	—	—	—	—	—	—	—	—	—	—	—	.2	.4	.7	.9	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.5	3.9	4.2	999
1000	—	—	—	—	—	.0	.2	.4	.6	.8	1.0	1.2	1.4	1.7	1.9	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.9	5.2	1000
1001	.5	.6	.6	.7	.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.5	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.9	5.2	5.6	5.9	6.2	1001
1002	1.5	1.6	1.6	1.7	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.7	5.0	5.3	5.6	5.9	6.2	6.6	6.9	7.2	1002
1003	2.5	2.6	2.6	2.7	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.5	4.7	5.0	5.2	5.5	5.7	6.0	6.3	6.6	6.9	7.3	7.6	7.9	8.3	1003
1004	3.5	3.6	3.6	3.7	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.5	5.7	6.0	6.2	6.5	6.8	7.0	7.3	7.6	7.9	8.3	8.6	8.9	9.3	1004
1005	4.5	4.5	4.6	4.7	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.5	6.7	7.0	7.2	7.5	7.8	8.1	8.3	8.6	9.0	9.3	9.6	9.9	10.3	1005
1006	5.5	5.5	5.6	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.5	7.7	8.0	8.2	8.5	8.8	9.1	9.4	9.7	10.0	10.3	10.6	11.0	11.3	1006
1007	6.5	6.5	6.6	6.7	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.5	8.7	9.0	9.2	9.5	9.8	10.1	10.4	10.7	11.0	11.3	11.6	12.0	12.3	1007
1008	7.5	7.5	7.6	7.7	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.5	10.8	11.1	11.4	11.7	12.0	12.3	12.6	13.0	13.3	1008
1009	8.5	8.5	8.6	8.7	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.3	10.5	10.7	11.0	11.2	11.5	11.8	12.1	12.4	12.7	13.0	13.3	13.7	14.0	14.3	1009
1010	9.5	9.5	9.6	9.7	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.3	11.5	11.7	12.0	12.3	12.5	12.8	13.1	13.4	13.7	14.0	14.3	14.7	15.0	15.4	1010
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

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TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
990	—	—	—	—	—	—	—	—	—	—	—	—	—	.2	.7	1.2	1.6	2.1	2.6	3.1	3.6	4.1	4.7	5.2	5.7	6.3	990
991	—	—	—	—	—	—	—	—	—	—	—	.4	.8	1.3	1.7	2.2	2.7	3.1	3.6	4.1	4.6	5.2	5.7	6.2	6.8	7.3	991
992	—	—	—	—	—	—	—	—	.1	.5	1.0	1.4	1.8	2.3	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.8	8.4	992
993	—	—	—	—	—	—	.3	.7	1.1	1.6	2.0	2.4	2.9	3.3	3.8	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.8	8.3	8.9	9.4	993
994	—	—	—	.2	.6	1.0	1.4	1.8	2.2	2.6	3.0	3.5	3.9	4.3	4.8	5.3	5.7	6.2	6.7	7.2	7.8	8.3	8.8	9.3	9.9	10.5	994
995	.1	.5	.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4	5.8	6.3	6.8	7.3	7.8	8.3	8.8	9.3	9.8	10.4	10.9	11.5	995
996	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.2	4.6	5.1	5.5	5.9	6.4	6.8	7.3	7.8	8.3	8.8	9.3	9.8	10.3	10.9	11.4	12.0	12.5	996
997	2.2	2.5	2.9	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.1	6.5	7.0	7.4	7.9	8.3	8.8	9.3	9.8	10.3	10.8	11.4	11.9	12.4	13.0	13.6	997
998	3.2	3.5	3.9	4.3	4.6	5.0	5.4	5.8	6.2	6.7	7.1	7.5	8.0	8.4	8.9	9.4	9.9	10.3	10.8	11.4	11.9	12.4	12.9	13.5	14.0	14.6	998
999	4.2	4.6	4.9	5.3	5.7	6.1	6.5	6.9	7.3	7.7	8.1	8.6	9.0	9.4	9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	14.0	14.5	15.1	15.6	999
1000	5.2	5.6	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.6	10.0	10.5	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.5	15.0	15.6	16.1	16.7	1000
1001	6.2	6.6	6.9	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.2	10.6	11.1	11.5	12.0	12.4	12.9	13.4	13.9	14.4	15.0	15.5	16.0	16.6	17.1	17.7	1001
1002	7.2	7.6	8.0	8.3	8.7	9.1	9.5	9.9	10.3	10.8	11.2	11.6	12.1	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.1	17.6	18.2	18.7	1002
1003	8.3	8.6	9.0	9.4	9.7	10.1	10.5	10.9	11.3	11.8	12.2	12.7	13.1	13.6	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.6	18.1	18.7	19.2	19.8	1003
1004	9.3	9.6	10.0	10.4	10.8	11.1	11.5	11.9	12.4	12.8	13.2	13.7	14.1	14.6	15.1	15.5	16.0	16.5	17.0	17.5	18.1	18.6	19.1	19.7	20.3	20.8	1004
1005	10.3	10.6	11.0	11.4	11.8	12.2	12.6	13.0	13.4	13.8	14.3	14.7	15.2	15.6	16.1	16.6	17.0	17.5	18.1	18.6	19.1	19.6	20.2	20.7	21.3	21.9	1005
1006	11.3	11.6	12.0	12.4	12.8	13.2	13.6	14.0	14.4	14.8	15.3	15.7	16.2	16.6	17.1	17.6	18.1	18.6	19.1	19.6	20.1	20.7	21.2	21.8	22.3	22.9	1006
1007	12.3	12.7	13.0	13.4	13.8	14.2	14.6	15.0	15.4	15.9	16.3	16.7	17.2	17.7	18.1	18.6	19.1	19.6	20.1	20.6	21.1	21.7	22.2	22.8	23.4	23.9	1007
1008	13.3	13.7	14.1	14.4	14.8	15.2	15.6	16.0	16.4	16.9	17.3	17.8	18.2	18.7	19.2	19.6	20.1	20.6	21.1	21.6	22.2	22.7	23.3	23.8	24.4	25.0	1008
1009	14.3	14.7	15.1	15.5	15.9	16.2	16.6	17.0	17.5	17.9	18.3	18.8	19.2	19.7	20.2	20.7	21.2	21.7	22.2	22.7	23.2	23.8	24.3	24.9	25.4	26.0	1009
1010	15.4	15.7	16.1	16.5	16.9	17.3	17.7	18.1	18.5	18.9	19.4	19.8	20.3	20.7	21.2	21.7	22.2	22.7	23.2	23.7	24.2	24.8	25.3	25.9	26.5	27.0	1010
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

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APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1010	9.5	9.5	9.6	9.7	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.3	11.5	11.7	12.0	12.3	12.5	12.8	13.1	13.4	13.7	14.0	14.3	14.7	15.0	15.4	1010
1011	10.4	10.5	10.6	10.7	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.3	12.5	12.8	13.0	13.3	13.5	13.8	14.1	14.4	14.7	15.0	15.4	15.7	16.0	16.4	1011
1012	11.4	11.5	11.6	11.7	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.3	13.5	13.8	14.0	14.3	14.5	14.8	15.1	15.4	15.7	16.0	16.4	16.7	17.0	17.4	1012
1013	12.4	12.5	12.6	12.7	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.3	14.5	14.8	15.0	15.3	15.6	15.8	16.1	16.4	16.7	17.0	17.4	17.7	18.0	18.4	1013
1014	13.4	13.5	13.6	13.7	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.3	15.5	15.8	16.0	16.3	16.6	16.8	17.1	17.4	17.7	18.1	18.4	18.7	19.1	19.4	1014
1015	14.4	14.5	14.6	14.7	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.3	16.5	16.8	17.0	17.3	17.6	17.8	18.1	18.4	18.7	19.1	19.4	19.7	20.1	20.4	1015
1016	15.4	15.5	15.6	15.7	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.3	17.5	17.8	18.0	18.3	18.6	18.9	19.1	19.4	19.8	20.1	20.4	20.7	21.1	21.4	1016
1017	16.4	16.5	16.6	16.7	16.8	17.0	17.2	17.4	17.6	17.8	18.1	18.3	18.5	18.8	19.0	19.3	19.6	19.9	20.2	20.5	20.8	21.1	21.4	21.8	22.1	22.5	1017
1018	17.4	17.5	17.6	17.7	17.8	18.0	18.2	18.4	18.6	18.8	19.1	19.3	19.5	19.8	20.0	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.8	23.1	23.5	1018
1019	18.4	18.5	18.6	18.7	18.8	19.0	19.2	19.4	19.6	19.8	20.1	20.3	20.5	20.8	21.1	21.3	21.6	21.9	22.2	22.5	22.8	23.1	23.4	23.8	24.1	24.5	1019
1020	19.4	19.5	19.6	19.7	19.8	20.0	20.2	20.4	20.6	20.8	21.1	21.3	21.5	21.8	22.1	22.3	22.6	22.9	23.2	23.5	23.8	24.1	24.4	24.8	25.1	25.5	1020
1021	20.4	20.5	20.6	20.7	20.8	21.0	21.2	21.4	21.6	21.8	22.1	22.3	22.5	22.8	23.1	23.3	23.6	23.9	24.2	24.5	24.8	25.1	25.5	25.8	26.1	26.5	1021
1022	21.4	21.5	21.6	21.7	21.8	22.0	22.2	22.4	22.6	22.8	23.1	23.3	23.5	23.8	24.1	24.3	24.6	24.9	25.2	25.5	25.8	26.1	26.5	26.8	27.2	27.5	1022
1023	22.4	22.5	22.6	22.7	22.8	23.0	23.2	23.4	23.6	23.8	24.1	24.3	24.6	24.8	25.1	25.3	25.6	25.9	26.2	26.5	26.8	27.2	27.5	27.8	28.2	28.5	1023
1024	23.4	23.5	23.6	23.7	23.8	24.0	24.2	24.4	24.6	24.8	25.1	25.3	25.6	25.8	26.1	26.4	26.6	26.9	27.2	27.5	27.8	28.2	28.5	28.8	29.2	29.6	1024
1025	24.4	24.5	24.6	24.7	24.8	25.0	25.2	25.4	25.6	25.8	26.1	26.3	26.6	26.8	27.1	27.4	27.6	27.9	28.2	28.5	28.8	29.2	29.5	29.9	30.2	30.6	1025
1026	25.4	25.5	25.6	25.7	25.8	26.0	26.2	26.4	26.6	26.8	27.1	27.3	27.6	27.8	28.1	28.4	28.6	28.9	29.2	29.5	29.9	30.2	30.5	30.9	31.2	31.6	1026
1027	26.4	26.5	26.6	26.7	26.8	27.0	27.2	27.4	27.6	27.8	28.1	28.3	28.6	28.8	29.1	29.4	29.7	29.9	30.2	30.6	30.9	31.2	31.5	31.9	32.2	32.6	1027
1028	27.4	27.5	27.6	27.7	27.8	28.0	28.2	28.4	28.6	28.8	29.1	29.3	29.6	29.8	30.1	30.4	30.7	31.0	31.3	31.6	31.9	32.2	32.5	32.9	33.2	33.6	1028
1029	28.3	28.4	28.6	28.7	28.8	29.0	29.2	29.4	29.6	29.8	30.1	30.3	30.6	30.8	31.1	31.4	31.7	32.0	32.3	32.6	32.9	33.2	33.6	33.9	34.3	34.6	1029
1030	29.3	29.4	29.6	29.7	29.8	30.0	30.2	30.4	30.6	30.8	31.1	31.3	31.6	31.8	32.1	32.4	32.7	33.0	33.3	33.6	33.9	34.2	34.6	34.9	35.3	35.6	1030
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

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TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1010	15.4	15.7	16.1	16.5	16.9	17.3	17.7	18.1	18.5	18.9	19.4	19.8	20.3	20.7	21.2	21.7	22.2	22.7	23.2	23.7	24.2	24.8	25.3	25.9	26.5	27.0	1010
1011	16.4	16.7	17.1	17.5	17.9	18.3	18.7	19.1	19.5	19.9	20.4	20.8	21.3	21.8	22.2	22.7	23.2	23.7	24.2	24.7	25.3	25.8	26.4	26.9	27.5	28.1	1011
1012	17.4	17.8	18.1	18.5	18.9	19.3	19.7	20.1	20.5	21.0	21.4	21.9	22.3	22.8	23.3	23.7	24.2	24.7	25.3	25.8	26.3	26.9	27.4	28.0	28.5	29.1	1012
1013	18.4	18.8	19.1	19.5	19.9	20.3	20.7	21.1	21.5	22.0	22.4	22.9	23.3	23.8	24.3	24.8	25.3	25.8	26.3	26.8	27.3	27.9	28.4	29.0	29.6	30.1	1013
1014	19.4	19.8	20.2	20.5	20.9	21.3	21.7	22.1	22.6	23.0	23.4	23.9	24.4	24.8	25.3	25.8	26.3	26.8	27.3	27.8	28.4	28.9	29.5	30.0	30.6	31.2	1014
1015	20.4	20.8	21.2	21.5	21.9	22.3	22.7	23.2	23.6	24.0	24.5	24.9	25.4	25.8	26.3	26.8	27.3	27.8	28.3	28.9	29.4	30.0	30.5	31.1	31.7	32.2	1015
1016	21.4	21.8	22.2	22.6	23.0	23.4	23.8	24.2	24.6	25.0	25.5	25.9	26.4	26.9	27.4	27.8	28.3	28.9	29.4	29.9	30.4	31.0	31.5	32.1	32.7	33.3	1016
1017	22.5	22.8	23.2	23.6	24.0	24.4	24.8	25.2	25.6	26.1	26.5	27.0	27.4	27.9	28.4	28.9	29.4	29.9	30.4	30.9	31.5	32.0	32.6	33.1	33.7	34.3	1017
1018	23.5	23.9	24.2	24.6	25.0	25.4	25.8	26.2	26.6	27.1	27.5	28.0	28.4	28.9	29.4	29.9	30.4	30.9	31.4	32.0	32.5	33.0	33.6	34.2	34.8	35.3	1018
1019	24.5	24.9	25.2	25.6	26.0	26.4	26.8	27.2	27.7	28.1	28.5	29.0	29.5	29.9	30.4	30.9	31.4	31.9	32.5	33.0	33.5	34.1	34.6	35.2	35.8	36.4	1019
1020	25.5	25.9	26.2	26.6	27.0	27.4	27.8	28.2	28.7	29.1	29.6	30.0	30.5	30.9	31.4	31.9	32.4	33.0	33.5	34.0	34.6	35.1	35.7	36.3	36.8	37.4	1020
1021	26.5	26.9	27.3	27.6	28.0	28.4	28.9	29.3	29.7	30.1	30.6	31.1	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.6	36.1	36.7	37.3	37.9	38.4	1021
1022	27.5	27.9	28.3	28.7	29.1	29.5	29.9	30.3	30.7	31.2	31.6	32.1	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.1	36.6	37.2	37.7	38.3	38.9	39.5	1022
1023	28.5	28.9	29.3	29.7	30.1	30.5	30.9	31.3	31.7	32.2	32.6	33.1	33.6	34.0	34.5	35.0	35.5	36.0	36.6	37.1	37.7	38.2	38.8	39.4	39.9	40.5	1023
1024	29.6	29.9	30.3	30.7	31.1	31.5	31.9	32.3	32.8	33.2	33.7	34.1	34.6	35.0	35.5	36.1	36.6	37.1	37.6	38.1	38.7	39.2	39.8	40.4	41.0	41.5	1024
1025	30.6	30.9	31.3	31.7	32.1	32.5	32.9	33.3	33.8	34.2	34.7	35.1	35.6	36.1	36.6	37.1	37.6	38.1	38.6	39.2	39.7	40.3	40.8	41.4	42.0	42.6	1025
1026	31.6	32.0	32.3	32.7	33.1	33.5	33.9	34.4	34.8	35.3	35.7	36.2	36.6	37.1	37.6	38.1	38.6	39.1	39.7	40.2	40.7	41.3	41.9	42.5	43.0	43.6	1026
1027	32.6	33.0	33.4	33.7	34.1	34.5	35.0	35.4	35.8	36.3	36.7	37.2	37.6	38.1	38.6	39.1	39.6	40.2	40.7	41.2	41.8	42.3	42.9	43.5	44.1	44.7	1027
1028	33.6	34.0	34.4	34.8	35.2	35.6	36.0	36.4	36.8	37.3	37.8	38.2	38.6	39.1	39.7	40.2	40.7	41.2	41.7	42.3	42.8	43.4	43.9	44.5	45.1	45.7	1028
1029	34.6	35.0	35.4	35.8	36.2	36.6	37.0	37.4	37.9	38.3	38.8	39.2	39.7	40.2	40.7	41.2	41.7	42.2	42.8	43.3	43.8	44.4	45.0	45.6	46.1	46.7	1029
1030	35.6	36.0	36.4	36.8	37.2	37.6	38.0	38.4	38.9	39.3	39.8	40.3	40.7	41.2	41.7	42.2	42.7	43.3	43.8	44.3	44.9	45.4	46.0	46.6	47.2	47.8	1030
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

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APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1030	29.3	29.4	29.6	29.7	29.8	30.0	30.2	30.4	30.6	30.8	31.1	31.3	31.6	31.8	32.1	32.4	32.7	33.0	33.3	33.6	33.9	34.2	34.6	34.9	35.3	35.6	1030
1031	30.3	30.4	30.6	30.7	30.8	31.0	31.2	31.4	31.6	31.8	32.1	32.3	32.6	32.9	33.1	33.4	33.7	34.0	34.3	34.6	34.9	35.2	35.6	35.9	36.3	36.7	1031
1032	31.3	31.4	31.6	31.7	31.8	32.0	32.2	32.4	32.6	32.9	33.1	33.3	33.6	33.9	34.1	34.4	34.7	35.0	35.3	35.6	35.9	36.3	36.6	37.0	37.3	37.7	1032
1033	32.3	32.4	32.5	32.7	32.8	33.0	33.2	33.4	33.6	33.9	34.1	34.3	34.6	34.9	35.1	35.4	35.7	36.0	36.3	36.6	36.9	37.3	37.6	38.0	38.3	38.7	1033
1034	33.3	33.4	33.5	33.7	33.8	34.0	34.2	34.4	34.6	34.9	35.1	35.3	35.6	35.9	36.1	36.4	36.7	37.0	37.3	37.6	38.0	38.3	38.6	39.0	39.3	39.7	1034
1035	34.3	34.4	34.5	34.7	34.8	35.0	35.2	35.4	35.6	35.9	36.1	36.4	36.6	36.9	37.2	37.4	37.7	38.0	38.3	38.6	39.0	39.3	39.6	40.0	40.4	40.7	1035
1036	35.3	35.4	35.5	35.7	35.8	36.0	36.2	36.4	36.6	36.9	37.1	37.4	37.6	37.9	38.2	38.4	38.7	39.0	39.3	39.7	40.0	40.3	40.6	41.0	41.4	41.7	1036
1037	36.3	36.4	36.5	36.7	36.8	37.0	37.2	37.4	37.6	37.9	38.1	38.4	38.6	38.9	39.2	39.4	39.7	40.0	40.3	40.7	41.0	41.3	41.7	42.0	42.4	42.8	1037
1038	37.3	37.4	37.5	37.7	37.8	38.0	38.2	38.4	38.6	38.9	39.1	39.4	39.6	39.9	40.2	40.5	40.7	41.0	41.4	41.7	42.0	42.3	42.7	43.0	43.4	43.8	1038
1039	38.3	38.4	38.5	38.7	38.8	39.0	39.2	39.4	39.6	39.9	40.1	40.4	40.6	40.9	41.2	41.5	41.8	42.1	42.4	42.7	43.0	43.3	43.7	44.0	44.4	44.8	1039
1040	39.3	39.4	39.5	39.7	39.8	40.0	40.2	40.4	40.6	40.9	41.1	41.4	41.6	41.9	42.2	42.5	42.8	43.1	43.4	43.7	44.0	44.4	44.7	45.1	45.4	45.8	1040
1041	40.3	40.4	40.5	40.7	40.8	41.0	41.2	41.4	41.7	41.9	42.1	42.4	42.6	42.9	43.2	43.5	43.8	44.1	44.4	44.7	45.0	45.4	45.7	46.1	46.4	46.8	1041
1042	41.3	41.4	41.5	41.6	41.8	42.0	42.2	42.4	42.7	42.9	43.1	43.4	43.7	43.9	44.2	44.5	44.8	45.1	45.4	45.7	46.0	46.4	46.7	47.1	47.5	47.8	1042
1043	42.3	42.4	42.5	42.6	42.8	43.0	43.2	43.4	43.7	43.9	44.1	44.4	44.7	44.9	45.2	45.5	45.8	46.1	46.4	46.7	47.1	47.4	47.7	48.1	48.5	48.8	1043
1044	43.3	43.4	43.5	43.6	43.8	44.0	44.2	44.4	44.7	44.9	45.1	45.4	45.7	45.9	46.2	46.5	46.8	47.1	47.4	47.7	48.1	48.4	48.8	49.1	49.5	49.9	1044
1045	44.3	44.4	44.5	44.6	44.8	45.0	45.2	45.4	45.7	45.9	46.1	46.4	46.7	46.9	47.2	47.5	47.8	48.1	48.4	48.7	49.1	49.4	49.8	50.1	50.5	50.9	1045
1046	45.3	45.4	45.5	45.6	45.8	46.0	46.2	46.4	46.7	46.9	47.1	47.4	47.7	47.9	48.2	48.5	48.8	49.1	49.4	49.8	50.1	50.4	50.8	51.2	51.5	51.9	1046
1047	46.3	46.4	46.5	46.6	46.8	47.0	47.2	47.4	47.7	47.9	48.1	48.4	48.7	48.9	49.2	49.5	49.8	50.1	50.4	50.8	51.1	51.4	51.8	52.2	52.5	52.9	1047
1048	47.3	47.4	47.5	47.6	47.8	48.0	48.2	48.4	48.7	48.9	49.2	49.4	49.7	50.0	50.2	50.5	50.8	51.1	51.5	51.8	52.1	52.5	52.8	53.2	53.5	53.9	1048
1049	48.2	48.4	48.5	48.6	48.8	49.0	49.2	49.4	49.7	49.9	50.2	50.4	50.7	51.0	51.2	51.5	51.8	52.2	52.5	52.8	53.1	53.5	53.8	54.2	54.6	54.9	1049
1050	49.2	49.4	49.5	49.6	49.8	50.0	50.2	50.4	50.7	50.9	51.2	51.4	51.7	52.0	52.2	52.5	52.8	53.2	53.5	53.8	54.1	54.5	54.8	55.2	55.6	55.9	1050
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

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TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																							APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1030	35.6	36.0	36.4	36.8	37.2	37.6	38.0	38.4	38.9	39.3	39.8	40.3	40.7	41.2	41.7	42.2	42.7	43.3	43.8	44.3	44.9	45.4	46.0	46.6	47.2	47.8	1030
1031	36.7	37.0	37.4	37.8	38.2	38.6	39.0	39.5	39.9	40.4	40.8	41.3	41.8	42.3	42.7	43.2	43.8	44.3	44.8	45.4	45.9	46.5	47.0	47.6	48.2	48.8	1031
1032	37.7	38.1	38.4	38.8	39.2	39.6	40.1	40.5	40.9	41.4	41.8	42.3	42.8	43.3	43.8	44.3	44.8	45.3	45.8	46.4	46.9	47.5	48.1	48.7	49.2	49.8	1032
1033	38.7	39.1	39.5	39.9	40.3	40.7	41.1	41.5	42.0	42.4	42.9	43.3	43.8	44.3	44.8	45.3	45.8	46.3	46.9	47.4	48.0	48.5	49.1	49.7	50.3	50.9	1033
1034	39.7	40.1	40.5	40.9	41.3	41.7	42.1	42.5	43.0	43.4	43.9	44.4	44.8	45.3	45.8	46.3	46.8	47.4	47.9	48.5	49.0	49.6	50.1	50.7	51.3	51.9	1034
1035	40.7	41.1	41.5	41.9	42.3	42.7	43.1	43.6	44.0	44.5	44.9	45.4	45.9	46.4	46.9	47.4	47.9	48.4	48.9	49.5	50.0	50.6	51.2	51.7	52.3	52.9	1035
1036	41.7	42.1	42.5	42.9	43.3	43.7	44.1	44.6	45.0	45.5	45.9	46.4	46.9	47.4	47.9	48.4	48.9	49.4	50.0	50.5	51.1	51.6	52.2	52.8	53.4	54.0	1036
1037	42.8	43.1	43.5	43.9	44.3	44.7	45.2	45.6	46.0	46.5	47.0	47.4	47.9	48.4	48.9	49.4	49.9	50.5	51.0	51.5	52.1	52.7	53.2	53.8	54.4	55.0	1037
1038	43.8	44.1	44.5	44.9	45.3	45.8	46.2	46.6	47.1	47.5	48.0	48.5	48.9	49.4	49.9	50.4	51.0	51.5	52.0	52.6	53.1	53.7	54.3	54.9	55.5	56.1	1038
1039	44.8	45.2	45.6	46.0	46.4	46.8	47.2	47.6	48.1	48.5	49.0	49.5	50.0	50.5	51.0	51.5	52.0	52.5	53.1	53.6	54.2	54.7	55.3	55.9	56.5	57.1	1039
1040	45.8	46.2	46.6	47.0	47.4	47.8	48.2	48.7	49.1	49.6	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.1	54.6	55.2	55.8	56.3	56.9	57.5	58.1	1040
1041	46.8	47.2	47.6	48.0	48.4	48.8	49.2	49.7	50.1	50.6	51.0	51.5	52.0	52.5	53.0	53.5	54.0	54.6	55.1	55.7	56.2	56.8	57.4	58.0	58.6	59.2	1041
1042	47.8	48.2	48.6	49.0	49.4	49.8	50.3	50.7	51.2	51.6	52.1	52.5	53.0	53.5	54.0	54.5	55.1	55.6	56.2	56.7	57.3	57.8	58.4	59.0	59.6	60.2	1042
1043	48.8	49.2	49.6	50.0	50.4	50.9	51.3	51.7	52.2	52.6	53.1	53.6	54.1	54.6	55.1	55.6	56.1	56.6	57.2	57.7	58.3	58.9	59.4	60.0	60.6	61.2	1043
1044	49.9	50.2	50.6	51.0	51.5	51.9	52.3	52.8	53.2	53.7	54.1	54.6	55.1	55.6	56.1	56.6	57.1	57.7	58.2	58.8	59.3	59.9	60.5	61.1	61.7	62.3	1044
1045	50.9	51.3	51.7	52.1	52.5	52.9	53.3	53.8	54.2	54.7	55.1	55.6	56.1	56.6	57.1	57.6	58.2	58.7	59.2	59.8	60.4	60.9	61.5	62.1	62.7	63.3	1045
1046	51.9	52.3	52.7	53.1	53.5	53.9	54.3	54.8	55.2	55.7	56.2	56.6	57.1	57.6	58.1	58.7	59.2	59.7	60.3	60.8	61.4	62.0	62.5	63.1	63.7	64.4	1046
1047	52.9	53.3	53.7	54.1	54.5	54.9	55.4	55.8	56.3	56.7	57.2	57.7	58.2	58.7	59.2	59.7	60.2	60.8	61.3	61.9	62.4	63.0	63.6	64.2	64.8	65.4	1047
1048	53.9	54.3	54.7	55.1	55.5	56.0	56.4	56.8	57.3	57.7	58.2	58.7	59.2	59.7	60.2	60.7	61.2	61.8	62.3	62.9	63.5	64.0	64.6	65.2	65.8	66.4	1048
1049	54.9	55.3	55.7	56.1	56.5	57.0	57.4	57.9	58.3	58.8	59.2	59.7	60.2	60.7	61.2	61.7	62.3	62.8	63.4	63.9	64.5	65.1	65.6	66.2	66.8	67.4	1049
1050	55.9	56.3	56.7	57.1	57.6	58.0	58.4	58.9	59.3	59.8	60.3	60.7	61.2	61.7	62.2	62.8	63.3	63.9	64.4	65.0	65.5	66.1	66.7	67.3	67.9	68.5	1050
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	TEMP.	100°

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APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1050	49.2	49.4	49.5	49.6	49.8	50.0	50.2	50.4	50.7	50.9	51.2	51.4	51.7	52.0	52.2	52.5	52.8	53.2	53.5	53.8	54.1	54.5	54.8	55.2	55.6	55.9	1050
1051	50.2	50.3	50.5	50.6	50.8	51.0	51.2	51.4	51.7	51.9	52.2	52.4	52.7	53.0	53.3	53.6	53.9	54.2	54.5	54.8	55.1	55.5	55.8	56.2	56.6	57.0	1051
1052	51.2	51.3	51.5	51.6	51.8	52.0	52.2	52.4	52.7	52.9	53.2	53.4	53.7	54.0	54.3	54.6	54.9	55.2	55.5	55.8	56.2	56.5	56.9	57.2	57.6	58.0	1052
1053	52.2	52.3	52.5	52.6	52.8	53.0	53.2	53.4	53.7	53.9	54.2	54.4	54.7	55.0	55.3	55.6	55.9	56.2	56.5	56.8	57.2	57.5	57.9	58.2	58.6	59.0	1053
1054	53.2	53.3	53.5	53.6	53.8	54.0	54.2	54.4	54.7	54.9	55.2	55.4	55.7	56.0	56.3	56.6	56.9	57.2	57.5	57.8	58.2	58.5	58.9	59.3	59.6	60.0	1054
1055	54.2	54.3	54.5	54.6	54.8	55.0	55.2	55.4	55.7	55.9	56.2	56.4	56.7	57.0	57.3	57.6	57.9	58.2	58.5	58.9	59.2	59.5	59.9	60.3	60.6	61.0	1055
1056	55.2	55.3	55.5	55.6	55.8	56.0	56.2	56.5	56.7	56.9	57.2	57.4	57.7	58.0	58.3	58.6	58.9	59.2	59.5	59.9	60.2	60.6	60.9	61.3	61.7	62.0	1056
1057	56.2	56.3	56.5	56.6	56.8	57.0	57.2	57.5	57.7	57.9	58.2	58.5	58.7	59.0	59.3	59.6	59.9	60.2	60.5	60.9	61.2	61.6	61.9	62.3	62.7	63.1	1057
1058	57.2	57.3	57.5	57.6	57.8	58.0	58.2	58.5	58.7	58.9	59.2	59.5	59.7	60.0	60.3	60.6	60.9	61.2	61.6	61.9	62.2	62.6	62.9	63.3	63.7	64.1	1058
1059	58.2	58.3	58.5	58.6	58.8	59.0	59.2	59.5	59.7	59.9	60.2	60.5	60.7	61.0	61.3	61.6	61.9	62.2	62.6	62.9	63.2	63.6	64.0	64.3	64.7	65.1	1059
1060	59.2	59.3	59.5	59.6	59.8	60.0	60.2	60.5	60.7	60.9	61.2	61.5	61.7	62.0	62.3	62.6	62.9	63.3	63.6	63.9	64.3	64.6	65.0	65.3	65.7	66.1	1060
1061	60.2	60.3	60.4	60.6	60.8	61.0	61.2	61.5	61.7	61.9	62.2	62.5	62.7	63.0	63.3	63.6	63.9	64.3	64.6	64.9	65.3	65.6	66.0	66.4	66.7	67.1	1061
1062	61.2	61.3	61.4	61.6	61.8	62.0	62.2	62.5	62.7	63.0	63.2	63.5	63.8	64.0	64.3	64.6	65.0	65.3	65.6	65.9	66.3	66.6	67.0	67.4	67.8	68.2	1062
1063	62.2	62.3	62.4	62.6	62.8	63.0	63.2	63.5	63.7	64.0	64.2	64.5	64.8	65.0	65.3	65.6	66.0	66.3	66.6	67.0	67.3	67.7	68.0	68.4	68.8	69.2	1063
1064	63.2	63.3	63.4	63.6	63.8	64.0	64.2	64.5	64.7	65.0	65.2	65.5	65.8	66.1	66.4	66.7	67.0	67.3	67.6	68.0	68.3	68.7	69.0	69.4	69.8	70.2	1064
1065	64.2	64.3	64.4	64.6	64.8	65.0	65.2	65.5	65.7	66.0	66.2	66.5	66.8	67.1	67.4	67.7	68.0	68.3	68.6	69.0	69.3	69.7	70.1	70.4	70.8	71.2	1065
1066	65.2	65.3	65.4	65.6	65.8	66.0	66.2	66.5	66.7	67.0	67.2	67.5	67.8	68.1	68.4	68.7	69.0	69.3	69.6	70.0	70.3	70.7	71.1	71.4	71.8	72.2	1066
1067	66.1	66.3	66.4	66.6	66.8	67.0	67.2	67.5	67.7	68.0	68.2	68.5	68.8	69.1	69.4	69.7	70.0	70.3	70.7	71.0	71.4	71.7	72.1	72.5	72.8	73.2	1067
1068	67.1	67.3	67.4	67.6	67.8	68.0	68.2	68.5	68.7	69.0	69.2	69.5	69.8	70.1	70.4	70.7	71.0	71.3	71.7	72.0	72.4	72.7	73.1	73.5	73.9	74.3	1068
1069	68.1	68.3	68.4	68.6	68.8	69.0	69.2	69.5	69.7	70.0	70.2	70.5	70.8	71.1	71.4	71.7	72.0	72.4	72.7	73.0	73.4	73.7	74.1	74.5	74.9	75.3	1069
1070	69.1	69.3	69.4	69.6	69.8	70.0	70.2	70.5	70.7	71.0	71.3	71.5	71.8	72.1	72.4	72.7	73.0	73.4	73.7	74.0	74.4	74.8	75.1	75.5	75.9	76.3	1070
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

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TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1050	55.9	56.3	56.7	57.1	57.6	58.0	58.4	58.9	59.3	59.8	60.3	60.7	61.2	61.7	62.2	62.8	63.3	63.9	64.4	65.0	65.5	66.1	66.7	67.3	67.9	68.5	1050
1051	57.0	57.4	57.8	58.2	58.6	59.0	59.5	59.9	60.4	60.8	61.3	61.8	62.3	62.8	63.3	63.8	64.3	64.9	65.4	66.0	66.6	67.1	67.7	68.3	68.9	69.5	1051
1052	58.0	58.4	58.8	59.2	59.6	60.0	60.5	60.9	61.4	61.8	62.3	62.8	63.3	63.8	64.3	64.8	65·4	65.9	66.5	67.0	67.6	68.2	68.7	69.3	70.0	70.6	1052
1053	59.0	59.4	59.8	60.2	60.6	61.1	61.5	61.9	62.4	62.9	63.3	63.8	64.3	64.8	65.3	65.8	66.4	66.9	67.5	68.0	68.6	69.2	69.8	70.4	71.0	71.6	1053
1054	60.0	60.4	60.8	61.2	61.6	62.1	62.5	63.0	63.4	63.9	64.4	64.8	65.3	65.8	66.4	66.9	67.4	68.0	68.5	69.1	69.6	70.2	70.8	71.4	72.0	72.6	1054
1055	61.0	61.4	61.8	62.2	62.7	63.1	63.5	64.0	64.4	64.9	65.4	65.9	66.4	66.9	67.4	67.9	68.5	69.0	69.6	70.1	70.7	71.3	71.8	72.4	73.1	73.7	1055
1056	62.0	62.4	62.8	63.3	63.7	64.1	64.6	65.0	65.5	65.9	66.4	66.9	67.4	67.9	68.4	68.9	69.5	70.0	70.6	71.1	71.7	72.3	72.9	73.5	74.1	74.7	1056
1057	63.1	63.5	63.9	64.3	64.7	65.1	65.6	66.0	66.5	67.0	67.4	67.9	68.4	68.9	69.4	70.0	70.5	71.1	71.6	72.2	72.7	73.3	73.9	74.5	75.1	75.8	1057
1058	64.1	64.5	64.9	65.3	65.7	66.2	66.6	67.0	67.5	68.0	68.4	68.9	69.4	70.0	70.5	71.0	71.5	72.1	72.6	73.2	73.8	74.4	75.0	75.6	76.2	76.8	1058
1059	65.1	65.5	65.9	66.3	66.7	67.2	67.6	68.1	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.6	73.1	73.7	74.2	74.8	75.4	76.0	76.6	77.2	77.8	1059
1160	66.1	66.5	66.9	67.3	67.8	68.2	68.6	69.1	69.5	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.6	74.1	74.7	75.3	75.8	76.4	77.0	77.6	78.2	78.9	1160
1161	67.1	67.5	67.9	68.4	68.8	69.2	69.7	70.1	70.6	71.1	71.5	72.0	72.5	73.0	73.5	74.1	74.6	75.2	75.7	76.3	76.9	77.5	78.1	78.7	79.3	79.9	1161
1162	68.2	68.6	69.0	69.4	69.8	70.2	70.7	71.1	71.6	72.1	72.5	73.0	73.6	74.1	74.6	75.1	75.7	76.2	76.8	77.3	77.9	78.5	79.1	79.7	80.3	80.9	1162
1163	69.2	69.6	70.0	70.4	70.8	71.3	71.7	72.2	72.6	73.1	73.6	74.1	74.6	75.1	75.6	76.1	76.7	77.2	77.8	78.4	78.9	79.5	80.1	80.7	81.3	82.0	1163
1164	70.2	70.6	71.0	71.4	71.8	72.3	72.7	73.2	73.6	74.1	74.6	75.1	75.6	76.1	76.6	77.2	77.7	78.3	78.8	79.4	80.0	80.6	81.2	81.8	82.4	83.0	1164
1165	71.2	71.6	72.0	72.4	72.9	73.3	73.8	74.2	74.7	75.2	75.6	76.1	76.6	77.1	77.7	78.2	78.7	79.3	79.8	80.4	81.0	81.6	82.2	82.8	83.4	84.0	1165
1166	72.2	72.6	73.0	73.5	73.9	74.3	74.8	75.2	75.7	76.2	76.7	77.2	77.7	78.2	78.7	79.2	79.8	80.3	80.9	81.5	82.0	82.6	83.2	83.8	84.4	85.1	1166
1167	73.2	73.6	74.1	74.5	74.9	75.4	75.8	76.3	76.7	77.2	77.7	78.2	78.7	79.2	79.7	80.3	80.8	81.4	81.9	82.5	83.1	83.7	84.3	84.9	85.5	86.1	1167
1168	74.3	74.7	75.1	75.5	75.9	76.4	76.8	77.3	77.7	78.2	78.7	79.2	79.7	80.2	80.7	81.3	81.8	82.4	82.9	83.5	84.1	84.7	85.3	85.9	86.5	87.1	1168
1169	75.3	75.7	76.1	76.5	77.0	77.4	77.8	78.3	78.8	79.2	79.7	80.2	80.7	81.2	81.8	82.3	82.9	83.4	84.0	84.5	85.1	85.7	86.3	86.9	87.6	88.2	1169
1170	76.3	76.7	77.1	77.5	78.0	78.4	78.9	79.3	79.8	80.3	80.8	81.3	81.8	82.3	82.8	83.3	83.9	84.4	85.0	85.6	86.2	86.8	87.4	88.0	88.6	89.2	1170
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

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APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1070	69.1	69.3	69.4	69.6	69.8	70.0	70.2	70.5	70.7	71.0	71.3	71.5	71.8	72.1	72.4	72.7	73.0	73.4	73.7	74.0	74.4	74.8	75.1	75.5	75.9	76.3	1070
1071	70.1	70.3	70.4	70.6	70.8	71.0	71.2	71.5	71.7	72.0	72.3	72.5	72.8	73.1	73.4	73.7	74.0	74.4	74.7	75.1	75.4	75.8	76.1	76.5	76.9	77.3	1071
1072	71.1	71.3	71.4	71.6	71.8	72.0	72.2	72.5	72.7	73.0	73.3	73.5	73.8	74.1	74.4	74.7	75.1	75.4	75.7	76.1	76.4	76.8	77.2	77.5	77.9	78.3	1072
1073	72 1	72.2	72.4	72.6	72.8	73.0	73.2	73.5	73.7	74.0	74.3	74.5	74.8	75.1	75.4	75.7	76.1	76.4	76.7	77.1	77.4	77.8	78.2	78.6	78.9	79.3	1073
1074	73.1	73.2	73.4	73.6	73.8	74.0	74.2	74.5	74.7	75.0	75.3	75.5	75.8	76.1	76.4	76.7	77.1	77.4	77.7	78.1	78.4	78.8	79.2	79.6	80.0	80.4	1074
1075	74.1	74.2	74.4	74.6	74.8	75.0	75.2	75.5	75.7	76.0	76.3	76.6	76.8	77.1	77.4	77.7	78.1	78.4	78.8	79.1	79.5	79.8	80.2	80.6	81.0	81.4	1075
1076	75.1	75.2	75.4	75.6	75.8	76.0	76.2	76.5	76.7	77.0	77.3	77.6	77.8	78.1	78.4	78.8	79.1	79.4	79.8	80.1	80.5	80.8	81.2	81.6	82.0	82.4	1076
1077	76.1	76.2	76.4	76.6	76.8	77.0	77.2	77.5	77.7	78.0	78.3	78.6	78.9	79.2	79.5	79.8	80.1	80.4	80.8	81.1	81.5	81.9	82.2	82.6	83.0	83.4	1077
1078	77.1	77.2	77.4	77.6	77.8	78.0	78.2	78.5	78.7	79.0	79.3	79.6	79.9	80.2	80.5	80.8	81.1	81.4	81.8	82.1	82.5	82.9	83.2	83.6	84.0	84.4	1078
1079	78.1	78.2	78.4	78.6	78.8	79.0	79.2	79.5	79.7	80.0	80.3	80.6	80.9	81.2	81.5	81.8	82.1	82.4	82.8	83.1	83.5	83.9	84.3	84.6	85.0	85.4	1079
1080	79.1	79.2	79.4	79.6	79.8	80.0	80.2	80.5	80.7	81.0	81.3	81.6	81.9	82.2	82.5	82.8	83.1	83.5	83.8	84.2	84.5	84.9	85.3	85.7	86.0	86.4	1080
1081	80.1	80.2	80.4	80.6	80.8	81.0	81.2	81.5	81.8	82.0	82.3	82.6	82.9	83.2	83.5	83.8	84.1	84.5	84.8	85.2	85.5	85.9	86.3	86.7	87.1	87.5	1081
1082	81.1	81.2	81.4	81.6	81.8	82.0	82.2	82.5	82.8	83.0	83.3	83.6	83.9	84.2	84.5	84.8	85.1	85.5	85.8	86.2	86.5	86.9	87.3	87.7	88.1	88.5	1082
1083	82.1	82.2	82.4	82.6	82.8	83.0	83.3	83.5	83.8	84.0	84.3	84.6	84.9	85.2	85.5	85.8	86.1	86.5	86.8	87.2	87.6	87.9	88.3	88.7	89.1	89.5	1083
1084	83.0	83.2	83.4	83.6	83.8	84.0	84.3	84.5	84.8	85.0	85.3	85.6	85.9	86.2	86.5	86.8	87.1	87.5	87.8	88.2	88.6	88.9	89.3	89.7	90.1	90.5	1084
1085	84.0	84.2	84.4	84.6	84.8	85.0	85.3	85.5	85.8	86.0	86.3	86.6	86.9	87.2	87.5	87.8	88.2	88.5	88.9	89.2	89.6	89.9	90.3	90.7	91.1	91.5	1085
1086	85.0	85.2	85.4	85.6	85.8	86.0	86.3	86.5	86.8	87.0	87.3	87.6	87.9	88.2	88.5	88.8	89.2	89.5	89.9	90.2	90.6	91.0	91.3	91.7	92.1	92.5	1086
1087	86.0	86.2	86.4	86.6	86.8	87.0	87.3	87.5	87.8	88.0	88.3	88.6	88.9	89.2	89.5	89.8	90.2	90.5	90.9	91.2	91.6	92.0	92.4	92.8	93.2	93.6	1087
1088	87.0	87.2	87.4	87.6	87.8	88.0	88.3	88.5	88.8	89.0	89.3	89.6	89.9	90.2	90.5	90.8	91.2	91.5	91.9	92.2	92.6	93.0	93.4	93.8	94.2	94.6	1088
1089	88.0	88.2	88.4	88.6	88.8	89.0	89.3	89.5	89.8	90.0	90.3	90.6	90.9	91.2	91.5	91.9	92.2	92.5	92.9	93.3	93.6	94.0	94.4	94.8	95.2	95.6	1089
1090	89.0	89.2	89.4	89.6	89.8	90.0	90.3	90.5	90.8	91.0	91.3	91.6	91.9	92.2	92.5	92.9	93.2	93.5	93.9	94.3	94.6	95.0	95.4	95.8	96.2	96.6	1090
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

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TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1070	76.3	76.7	77.1	77.5	78.0	78.4	78.9	79.3	79.8	80.3	80.8	81.3	81.8	82.3	82.8	83.3	83.9	84.4	85.0	85.6	86.2	86.8	87.4	88.0	88.6	89.2	1070
1071	77.3	77.7	78.1	78.6	79.0	79.4	79.9	80.4	80.8	81.3	81.8	82.3	82.8	83.3	83.8	84.4	84.9	85.5	86.0	86.6	87.2	87.8	88.4	89.0	89.6	90.3	1071
1072	78.3	78.7	79.2	79.6	80.0	80.5	80.9	81.4	81.8	82.3	82.8	83.3	83.8	84.3	84.9	85.4	85.9	86.5	87.1	87.6	88.2	88.8	89.4	90.0	90.7	91.3	1072
1073	79.3	79.7	80.2	80.6	81.0	81.5	81.9	82.4	82.9	83.3	83.8	84.3	84.8	85.3	85.9	86.4	87.0	87.5	88.1	88.7	89.3	89.9	90.5	91.1	91.7	92.3	1073
1074	80.4	80.8	81.2	81.6	82.1	82.5	82.9	83.4	83.9	84.4	84.9	85.4	85.9	86.4	86.9	87.4	88.0	88.6	89.1	89.7	90.3	90.9	91.5	92.1	92.7	93.4	1074
1075	81.4	81.8	82.2	82.6	83.1	83.5	84.0	84.4	84.9	85.4	85.9	86.4	86.9	87.4	87.9	88.5	89.0	89.6	90.2	90.7	91.3	91.9	92.5	93.2	93.8	94.4	1075
1076	82.4	82.8	83.2	83.7	84.1	84.5	85.0	85.5	85.9	86.4	86.9	87.4	87.9	88.4	89.0	89.5	90.1	90.6	91.2	91.8	92.4	93.0	93.6	94.2	94.8	95.4	1076
1077	83.4	83.8	84.2	84.7	85.1	85.6	86.0	86.5	87.0	87.4	87.9	88.4	88.9	89.5	90.0	90.5	91.1	91.7	92.2	92.8	93.4	94.0	94.6	95.2	95.8	96.5	1077
1078	84.4	84.8	85.3	85.7	86.1	86.6	87.0	87.5	88.0	88.5	88.9	89.4	89.9	90.5	91.0	91.6	92.1	92.7	93.2	93.8	94.4	95.0	95.6	96.3	96.9	97.5	1078
1079	85.4	85.8	86.3	86.7	87.1	87.6	88.0	88.5	89.0	89.5	90.0	90.5	91.0	91.5	92.0	92.6	93.1	93.7	94.3	94.9	95.5	96.1	96.7	97.3	97.9	98.6	1079
1080	86.4	86.9	87.3	87.7	88.2	88.6	89.1	89.5	90.0	90.5	91.0	91.5	92.0	92.5	93.1	93.6	94.2	94.7	95.3	95.9	96.5	97.1	97.7	98.3	99.0	99.6	1080
1081	87.5	87.9	88.3	88.7	89.2	89.6	90.1	90.6	91.0	91.5	92.0	92.5	93.0	93.6	94.1	94.6	95.2	95.8	96.3	96.9	97.5	98.1	98.7	99.4	100.0	100.6	1081
1082	88.5	88.9	89.3	89.8	90.2	90.7	91.1	91.6	92.1	92.6	93.1	93.6	94.1	94.6	95.1	95.7	96.2	96.8	97.4	98.0	98.6	99.2	99.8	100.4	101.0	101.7	1082
1083	89.5	89.9	90.3	90.8	91.2	91.7	92.1	92.6	93.1	93.6	94.1	94.6	95.1	95.6	96.2	96.7	97.3	97.8	98.4	99.0	99.6	100.2	100.8	101.4	102.1	102.7	1083
1084	90.5	90.9	91.4	91.8	92.2	92.7	93.2	93.6	94.1	94.6	95.1	95.6	96.1	96.6	97.2	97.7	98.3	98.9	99.4	100.0	100.6	101.2	101.8	102.5	103.1	103.7	1084
1085	91.5	92.0	92.4	92.8	93.3	93.7	94.2	94.7	95.1	95.6	96.1	96.6	97.2	97.7	98.2	98.8	99.3	99.9	100.5	101.1	101.7	102.3	102.9	103.5	104.1	104.8	1085
1086	92.5	93.0	93.4	93.8	94.3	94.7	95.2	95.7	96.2	96.7	97.2	97.7	98.2	98.7	99.3	99.8	100.3	100.9	101.5	102.1	102.7	103.3	103.9	104.5	105.2	105.8	1086
1087	93.6	94.0	94.4	94.9	95.3	95.8	96.2	96.7	97.2	97.7	98.2	98.7	99.2	99.7	100.3	100.8	101.4	102.0	102.5	103.1	103.7	104.3	104.9	105.6	106.2	106.9	1087
1088	94.6	95.0	95.4	95.9	96.3	96.8	97.2	97.7	98.2	98.7	99.2	99.7	100.2	100.8	101.3	101.9	102.4	103.0	103.6	104.2	104.8	105.4	106.0	106.6	107.2	107.9	1088
1089	95.6	96.0	96.4	96.9	97.3	97.8	98.3	98.7	99.2	99.7	100.2	100.7	101.3	101.8	102.3	102.9	103.4	104.0	104.6	105.2	105.8	106.4	107.0	107.6	108.3	108.9	1089
1090	96.6	97.0	97.5	97.9	98.4	98.8	99.3	99.8	100.3	100.8	101.3	101.8	102.3	102.8	103.4	103.9	104.5	105.1	105.6	106.2	106.8	107.4	108.0	108.7	109.3	110.0	1090
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1090	89.0	89.2	89.4	89.6	89.8	90.0	90.3	90.5	90.8	91.0	91.3	91.6	91.9	92.2	92.5	92.9	93.2	93.5	93.9	94.3	94.6	95.0	95.4	95.8	96.2	96.6	1090
1091	90.0	90.2	90.3	90.5	90.8	91.0	91.3	91.5	91.8	92.0	92.3	92.6	92.9	93.2	93.5	93.9	94.2	94.6	94.9	95.3	95.6	96.0	96.4	96.8	97.2	97.6	1091
1092	91.0	91.2	91.3	91.5	91.8	92.0	92.3	92.5	92.8	93.0	93.3	93.6	93.9	94.2	94.6	94.9	95.2	95.6	95.9	96.3	96.6	97.0	97.4	97.8	98.2	98.6	1092
1093	92.0	92.2	92.3	92.5	92.8	93.0	93.3	93.5	93.8	94.1	94.3	94.6	94.9	95.2	95.6	95.9	96.2	96.6	96.9	97.3	97.7	98.0	98.4	98.8	99.2	99.7	1093
1094	93.0	93.2	93.3	93.5	93.8	94.0	94.3	94.5	94.8	95.1	95.3	95.6	95.9	96.3	96.6	96.9	97.2	97.6	97.9	98.3	98.7	99.1	99.5	99.9	100.3	100.7	1094
1095	94.0	94.2	94.3	94.5	94.8	95.0	95.3	95.5	95.8	96.1	96.3	96.6	96.9	97.3	97.6	97.9	98.2	98.6	98.9	99.3	99.7	100.1	100.5	100.9	101.3	101.7	1095
1096	95.0	95.2	95.3	95.5	95.8	96.0	96.3	96.5	96.8	97.1	97.3	97.6	98.0	98.3	98.6	98.9	99.3	99.6	100.0	100.3	100.7	101.1	101.5	101.9	102.3	102.7	1096
1097	96.0	96.1	96.3	96.5	96.8	97.0	97.3	97.5	97.8	98.1	98.3	98.6	99.0	99.3	99.6	99.9	100.3	100.6	101.0	101.3	101.7	102.1	102.5	102.9	103.3	103.7	1097
1098	97.0	97.1	97.3	97.5	97.8	98.0	98.3	98.5	98.8	99.1	99.4	99.7	100.0	100.3	100.6	100.9	101.3	101.6	102.0	102.4	102.7	103.1	103.5	103.9	104.3	104.7	1098
1099	98.0	98.1	98.3	98.5	98.8	99.0	99.3	99.5	99.8	100.1	100.4	100.7	101.0	101.3	101.6	101.9	102.3	102.6	103.0	103.4	103.7	104.1	104.5	104.9	105.3	105.7	1099
1100	99.0	99.1	99.3	99.5	99.8	100.0	100.3	100.5	100.8	101.1	101.4	101.7	102.0	102.3	102.6	102.9	103.3	103.6	104.0	104.4	104.7	105.1	105.5	105.9	106.3	106.8	1100
1101	100.0	100.1	100.3	100.5	100.8	101.0	101.3	101.5	101.8	102.1	102.4	102.7	103.0	103.3	103.6	103.9	104.3	104.6	105.0	105.4	105.7	106.1	106.5	107.0	107.4	107.8	1101
1102	100.9	101.1	101.3	101.5	101.8	102.0	102.3	102.5	102.8	103.1	103.4	103.7	104.0	104.3	104.6	105.0	105.3	105.7	106.0	106.4	106.8	107.2	107.6	108.0	108.4	108.8	1102
1103	101.9	102.1	102.3	102.5	102.8	103.0	103.3	103.5	103.8	104.1	104.4	104.7	105.0	105.3	105.6	106.0	106.3	106.7	107.0	107.4	107.8	108.2	108.6	109.0	109.4	109.8	1103
1104	102.9	103.1	103.3	103.5	103.8	104.0	104.3	104.5	104.8	105.1	105.4	105.7	106.0	106.3	106.6	107.0	107.3	107.7	108.0	108.4	108.8	109.2	109.6	110.0	110.4	110.8	1104
1105	103.9	104.1	104.3	104.5	104.8	105.0	105.3	105.5	105.8	106.1	106.4	106.7	107.0	107.3	107.6	108.0	108.3	108.7	109.1	109.4	109.8	110.2	110.6	111.0	111.4	111.8	1105
1106	104.9	105.1	105.3	105.5	105.8	106.0	106.3	106.5	106.8	107.1	107.4	107.7	108.0	108.3	108.7	109.0	109.3	109.7	110.1	110.4	110.8	111.2	111.6	112.0	112.4	112.9	1106
1107	105.9	106.1	106.3	106.5	106.8	107.0	107.3	107.5	107.8	108.1	108.4	108.7	109.0	109.3	109.7	110.0	110.3	110.7	111.1	111.4	111.8	112.2	112.6	113.0	113.5	113.9	1107
1108	106.9	107.1	107.3	107.5	107.7	108.0	108.3	108.5	108.8	109.1	109.4	109.7	110.0	110.3	110.7	111.0	111.4	111.7	112.1	112.5	112.8	113.2	113.6	114.1	114.5	114.9	1108
1109	107.9	108.1	108.3	108.5	108.7	109.0	109.3	109.5	109.8	110.1	110.4	110.7	111.0	111.3	111.7	112.0	112.4	112.7	113.1	113.5	113.8	114.2	114.7	115.1	115.5	115.9	1109
1110	108.9	109.1	109.3	109.5	109.7	110.0	110.3	110.5	110.8	111.1	111.4	111.7	112.0	112.3	112.7	113.0	113.4	113.7	114.1	114.5	114.9	115.3	115.7	116.1	116.5	116.9	1110
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1090	96.6	97.0	97.5	97.9	98.4	98.8	99.3	99.8	100.3	100.8	101.3	101.8	102.3	102.8	103.4	103.9	104.5	105.1	105.6	106.2	106.8	107.4	108.0	108.7	109.3	110.0	1090
1091	97.6	98.1	98.5	98.9	99.4	99.8	100.3	100.8	101.3	101.8	102.3	102.8	103.3	103.8	104.4	104.9	105.5	106.1	106.7	107.3	107.9	108.5	109.1	109.7	110.4	111.0	1091
1092	98.6	99.1	99.5	99.9	100.4	100.9	101.3	101.8	102.3	102.8	103.3	103.8	104.4	104.9	105.4	106.0	106.5	107.1	107.7	108.3	108.9	109.5	110.1	110.8	111.4	112.0	1092
1093	99.7	100.1	100.5	101.0	101.4	101.9	102.4	102.8	103.3	103.8	104.3	104.8	105.4	105.9	106.4	107.0	107.6	108.1	108.7	109.3	109.9	110.5	111.2	111.8	112.4	113.1	1093
1094	100.7	101.1	101.5	102.0	102.4	102.9	103.4	103.9	104.3	104.8	105.4	105.9	106.4	106.9	107.5	108.0	108.6	109.2	109.8	110.4	111.0	111.6	112.2	112.8	113.5	114.1	1094
1095	101.7	102.1	102.6	103.0	103.5	103.9	104.4	104.9	105.4	105.9	106.4	106.9	107.4	108.0	108.5	109.1	109.6	110.2	110.8	111.4	112.0	112.6	113.2	113.9	114.5	115.1	1095
1096	102.7	103.1	103.6	104.0	104.5	104.9	105.4	105.9	106.4	106.9	107.4	107.9	108.5	109.0	109.5	110.1	110.7	111.2	111.8	112.4	113.0	113.6	114.3	114.9	115.5	116.2	1096
1097	103.7	104.2	104.6	105.0	105.5	106.0	106.4	106.9	107.4	107.9	108.4	109.0	109.5	110.0	110.6	111.1	111.7	112.3	112.9	113.5	114.1	114.7	115.3	115.9	116.6	117.2	1097
1098	104.7	105.2	105.6	106.1	106.5	107.0	107.5	107.9	108.4	108.9	109.5	110.0	110.5	111.0	111.6	112.2	112.7	113.3	113.9	114.5	115.1	115.7	116.3	117.0	117.6	118.3	1098
1099	105.8	106.2	106.6	107.1	107.5	108.0	108.5	109.0	109.5	110.0	110.5	111.0	111.5	112.1	112.6	113.2	113.8	114.3	114.9	115.5	116.1	116.7	117.4	118.0	118.6	119.3	1099
1100	106.8	107.2	107.7	108.1	108.6	109.0	109.5	110.0	110.5	111.0	111.5	112.0	112.6	113.1	113.7	114.2	114.8	115.4	116.0	116.6	117.2	117.8	118.4	119.0	119.7	120.3	1100
1101	107.8	108.2	108.7	109.1	109.6	110.0	110.5	111.0	111.5	112.0	112.5	113.1	113.6	114.1	114.7	115.3	115.8	116.4	117.0	117.6	118.2	118.8	119.4	120.1	120.7	121.4	1101
1102	108.8	109.2	109.7	110.1	110.6	111.1	111.6	112.0	112.5	113.1	113.6	114.1	114.6	115.2	115.7	116.3	116.9	117.4	118.0	118.6	119.2	119.8	120.5	121.1	121.8	122.4	1102
1103	109.8	110.3	110.7	111.1	111.6	112.1	112.6	113.1	113.6	114.1	114.6	115.1	115.6	116.2	116.7	117.3	117.9	118.5	119.0	119.6	120.2	120.9	121.5	122.1	122.8	123.4	1103
1104	110.8	111.3	111.7	112.2	112.6	113.1	113.6	114.1	114.6	115.1	115.6	116.1	116.7	117.2	117.8	118.3	118.9	119.5	120.1	120.7	121.3	121.9	122.5	123.2	123.8	124.5	1104
1105	111.8	112.3	112.8	113.2	113.7	114.1	114.6	115.1	115.6	116.1	116.6	117.2	117.7	118.3	118.8	119.4	119.9	120.5	121.1	121.7	122.3	122.9	123.6	124.2	124.9	125.5	1105
1106	112.9	113.3	113.8	114.2	114.7	115.2	115.6	116.1	116.6	117.1	117.7	118.2	118.7	119.3	119.8	120.4	121.0	121.6	122.1	122.7	123.3	124.0	124.6	125.3	125.9	126.6	1106
1107	113.9	114.3	114.8	115.2	115.7	116.2	116.7	117.2	117.7	118.2	118.7	119.2	119.8	120.3	120.9	121.4	122.0	122.6	123.2	123.8	124.4	125.0	125.6	126.3	126.9	127.6	1107
1108	114.9	115.3	115.8	116.2	116.7	117.2	117.7	118.2	118.7	119.2	119.7	120.2	120.8	121.3	121.9	122.4	123.0	123.6	124.2	124.8	125.4	126.0	126.7	127.3	128.0	128.6	1108
1109	115.9	116.4	116.8	117.3	117.7	118.2	118.7	119.2	119.7	120.2	120.7	121.3	121.8	122.4	122.9	123.5	124.1	124.6	125.2	125.8	126.5	127.1	127.7	128.4	129.0	129.7	1109
1110	116.9	117.4	117.8	118.3	118.8	119.2	119.7	120.2	120.7	121.2	121.8	122.3	122.8	123.4	123.9	124.5	125.1	125.7	126.3	126.9	127.5	128.1	128.7	129.4	130.0	130.7	1110
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1110	108.9	109.1	109.3	109.5	109.7	110.0	110.3	110.5	110.8	111.1	111.4	111.7	112.0	112.3	112.7	113.0	113.4	113.7	114.1	114.5	114.9	115.3	115.7	116.1	116.5	116.9	1110
1111	109.9	110.1	110.3	110.5	110.7	111.0	111.3	111.5	111.8	112.1	112.4	112.7	113.0	113.4	113.7	114.0	114.4	114.7	115.1	115.5	115.9	116.3	116.7	117.1	117.5	118.0	1111
1112	110.9	111.1	111.3	111.5	111.7	112.0	112.3	112.5	112.8	113.1	113.4	113.7	114.0	114.4	114.7	115.0	115.4	115.7	116.1	116.5	116.9	117.3	117.7	118.1	118.5	119.0	1112
1113	111.9	112.1	112.3	112.5	112.7	113.0	113.3	113.5	113.8	114.1	114.4	114.7	115.0	115.4	115.7	116.0	116.4	116.8	117.1	117.5	117.9	118.3	118.7	119.1	119.6	120.0	1113
1114	112.9	113.1	113.3	113.5	113.7	114.0	114.3	114.5	114.8	115.1	115.4	115.7	116.0	116.4	116.7	117.0	117.4	117.8	118.1	118.5	118.9	119.3	119.7	120.1	120.6	121.0	1114
1115	113.9	114.1	114.3	114.5	114.7	115.0	115.3	115.5	115.8	116.1	116.4	116.7	117.0	117.4	117.7	118.1	118.4	118.8	119.1	119.5	119.9	120.3	120.7	121.2	121.6	122.0	1115
1116	114.9	115.1	115.3	115.5	115.7	116.0	116.3	116.5	116.8	117.1	117.4	117.7	118.1	118.4	118.7	119.1	119.4	119.8	120.2	120.5	120.9	121.3	121.7	122.2	122.6	123.0	1116
1117	115.9	116.1	116.3	116.5	116.7	117.0	117.3	117.6	117.8	118.1	118.4	118.7	119.1	119.4	119.7	120.1	120.4	120.8	121.2	121.5	121.9	122.3	122.8	123.2	123.6	124.0	1117
1118	116.9	117.1	117.3	117.5	117.7	118.0	118.3	118.6	118.8	119.1	119.4	119.7	120.1	120.4	120.7	121.1	121.4	121.8	122.2	122.6	123.0	123.4	123.8	124.2	124.6	125.1	1118
1119	117.9	118.1	118.3	118.5	118.7	119.0	119.3	119.6	119.8	120.1	120.4	120.8	121.1	121.4	121.7	122.1	122.4	122.8	123.2	123.6	124.0	124.4	124.8	125.2	125.6	126.1	1119
1120	118.9	119.0	119.3	119.5	119.7	120.0	120.3	120.6	120.8	121.1	121.4	121.8	122.1	122.4	122.7	123.1	123.4	123.8	124.2	124.6	125.0	125.4	125.8	126.2	126.7	127.1	1120
1121	119.8	120.0	120.3	120.5	120.7	121.0	121.3	121.6	121.8	122.1	122.4	122.8	123.1	123.4	123.8	124.1	124.5	124.8	125.2	125.6	126.0	126.4	126.8	127.2	127.7	128.1	1121
1122	120.8	121.0	121.3	121.5	121.7	122.0	122.3	122.6	122.9	123.2	123.5	123.8	124.1	124.4	124.8	125.1	125.5	125.8	126.2	126.6	127.0	127.4	127.8	128.3	128.7	129.1	1122
1123	121.8	122.0	122.2	122.5	122.7	123.0	123.3	123.6	123.9	124 2	124.5	124.8	125.1	125.4	125.8	126.1	126.5	126.8	127.2	127.6	128.0	128.4	128.8	129.3	129.7	130.1	1123
1124	122.8	123.0	123.2	123.5	123.7	124.0	124.3	124.6	124.9	125.2	125.5	125.8	126.1	126.4	126.8	127.1	127.5	127.9	128.2	128.6	129.0	129.4	129.9	130.3	130.7	131.2	1124
1125	123.8	124.0	124.2	124.5	124.7	125.0	125.3	125.6	125.9	126.2	126.5	126.8	127.1	127.4	127.8	128.1	128.5	128.9	129.2	129.6	130.0	130.4	130.9	131.3	131.7	132.2	1125
1126	124.8	125.0	125.2	125.5	125.7	126.0	126.3	126.6	126.9	127.2	127.5	127.8	128.1	128.4	128.8	129.1	129.5	129.9	130.3	130.6	131.0	131.5	131.9	132.3	132.7	133.2	1126
1127	125.8	126.0	126.2	126.5	126.7	127.0	127.3	127.6	127.9	128.2	128.5	128.8	129.1	129 5	129.8	130.1	130.5	130.9	131.3	131.7	132.1	132.5	132.9	133.3	133.8	134.2	1127
1128	126.8	127.0	127.2	127.5	127.7	128.0	128.3	128.6	128.9	129.2	129.5	129.8	130.1	130.5	130.8	131.2	131.5	131.9	132.3	132.7	133.1	133.5	133.9	134.3	134.8	135.2	1128
1129	127.8	128.0	128.2	128.5	128.7	129.0	129.3	129.6	129.9	130.2	130.5	130.8	131.1	131.5	131.8	132.2	132.5	132.9	133.3	133.7	134.1	134.5	134.9	135.4	135.8	136.2	1129
1130	128.8	129.0	129.2	129.5	129.7	130.0	130.3	130.6	130.9	131.2	131.5	131.8	132.1	132.5	132.8	133.2	133.5	133.9	134.3	134.7	135.1	135.5	135.9	136.4	136.8	137.2	1130
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

TABLE III.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1110	116.9	117.4	117.8	118.3	118.8	119.2	119.7	120.2	120.7	121.2	121.8	122.3	122.8	123.4	123.9	124.5	125.1	125.7	126.3	126.9	127.5	128.1	128.7	129.4	130.0	130.7	1110
1111	118.0	118.4	118.9	119.3	119.8	120.3	120.8	121.2	121.7	122.3	122.8	123.3	123.9	124.4	125.0	125.5	126.1	126.7	127.3	127.9	128.5	129.2	129.8	130.4	131.1	131.7	1111
1112	119.0	119.4	119.9	120.3	120.8	121.3	121.8	122.3	122.8	123.3	123.8	124.4	124.9	125.4	126.0	126.6	127.2	127.7	128.3	128.9	129.6	130.2	130.8	131.5	132.1	132.8	1112
1113	120.0	120.4	120.9	121.3	121.8	122.3	122.8	123.3	123.8	124.3	124.8	125.4	125.9	126.5	127.0	127.6	128.2	128.8	129.4	130.0	130.6	131.2	131.9	132.5	133.2	133.8	1113
1114	121.0	121.4	121.9	122.4	122.8	123.3	123.8	124.3	124.8	125.3	125.9	126.4	126.9	127.5	128.0	128.6	129.2	129.8	130.4	131.0	131.6	132.3	132.9	133.5	134.2	134.9	1114
1115	122.0	122.5	122.9	123.4	123.9	124.3	124.8	125.3	125.8	126.4	126.9	127.4	128.0	128.5	129.1	129.7	130.2	130.8	131.4	132.0	132.7	133.3	133.9	134.5	135.2	135.9	1115
1116	123.0	123.5	123.9	124.4	124.9	125.4	125.9	126.4	126.9	127.4	127.9	128.4	129.0	129.6	130.1	130.7	131.3	131.8	132.4	133.1	133.7	134.3	135.0	135.6	136.3	136.9	1116
1117	124.0	124.5	125.0	125.4	125.9	126.4	126.9	127.4	127.9	128.4	128.9	129.5	130.0	130.6	131.1	131.7	132.3	132.9	133.5	134.1	134.7	135.4	136.0	136.7	137.3	138.0	1117
1118	125.1	125.5	126.0	126.4	126.9	127.4	127.9	128.4	128.9	129.4	129.9	130.5	131.0	131.6	132.2	132.7	133.3	133.9	134.5	135.1	135.7	136.4	137.0	137.7	138.3	139.0	1118
1119	126.1	126.5	127.0	127.5	127.9	128.4	128.9	129.4	129.9	130.4	131.0	131.5	132.1	132.6	133.2	133.8	134.3	134.9	135.5	136.2	136.8	137.4	138.1	138.7	139.4	140.1	1119
1120	127.1	127.5	128.0	128.5	129.0	129.4	129.9	130.4	130.9	131.5	132.0	132.5	133.1	133.6	134.2	134.8	135.4	136.0	136.6	137.2	137.8	138.5	139.1	139.8	140.4	141.1	1120
1121	128.1	128.6	129.0	129.5	130.0	130.5	131.0	131.5	132.0	132.5	133.0	133.6	134.1	134.7	135.2	135.8	136.4	137.0	137.6	138.2	138.8	139.5	140.1	140.8	141.5	142.1	1211
1122	129.1	129.6	130.0	130.5	131.0	131.5	132.0	132.5	133.0	133.5	134.0	134.6	135.1	135.7	136.3	136.9	137.4	138.0	138.6	139.3	139.9	140.5	141.2	141.8	142.5	143.2	1122
1123	130.1	130.6	131.1	131.5	132.0	132.5	133.0	133.5	134.0	134.5	135.1	135.6	136.2	136.7	137.3	137.9	138.5	139.1	139.7	140.3	140.9	141.5	142.2	142.9	143.5	144.2	1123
1124	131.2	131.6	132.1	132.5	133.0	133.5	134.0	134.5	135.0	135.6	136.1	136.6	137.2	137.7	138.3	138.9	139.5	140.1	140.7	141.3	141.9	142.6	143.2	143.9	144.6	145.2	1124
1125	132.2	132.6	133.1	133.6	134.0	134.5	135.0	135.5	136.1	136.6	137.1	137.7	138.2	138.8	139.3	139.9	140.5	141.1	141.7	142.4	143.0	143.6	144.3	144.9	145.6	146.3	1125
1126	133.2	133.6	134.1	134.6	135.1	135.6	136.1	136.6	137.1	137.6	138.1	138.7	139.2	139.8	140.4	141.0	141.5	142.1	142.8	143.4	144.0	144.6	145.3	146.0	146.6	147.3	1126
1127	134.2	134.7	135.1	135.6	136.1	136.6	137.1	137.6	138.1	138.6	139.2	139.7	140.3	140.8	141.4	142.0	142.6	143.2	143.8	144.4	145.0	145.7	146.3	147.0	147.7	148.4	1127
1128	135.2	135.7	136.1	136.6	137.1	137.6	138.1	138.6	139.1	139.6	140.2	140.7	141.3	141.8	142.4	143.0	143.6	144.2	144.8	145.4	146.1	146.7	147.4	148.0	148.7	149.4	1128
1129	136.2	136.7	137.1	137.6	138.1	138.6	139.1	139.6	140.1	140.7	141.2	141.7	142.3	142.9	143.4	144.0	144.6	145.2	145.8	146.5	147.1	147.8	148.4	149.1	149.7	150.4	1129
1130	137.2	137.7	138.2	138.6	139.1	139.6	140.1	140.6	141.2	141.7	142.2	142.8	143.3	143.9	144.5	145.1	145.7	146.3	146.9	147.5	148.1	148.8	149.4	150.1	150.8	151.5	1030
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1130	128.8	129.0	129.2	129.5	129.7	130.0	130.3	130.6	130.9	131.2	131.5	131.8	132.1	132.5	132.8	133.2	133.5	133.9	134.3	134.7	135.1	135.5	135.9	136.4	136.8	137.2	1130
1131	129.8	130.0	130.2	130.5	130.7	131.0	131.3	131.6	131.9	132.2	132.5	132.8	133.1	133.5	133.8	134.2	134.5	134.9	135.3	135.7	136.1	136.5	137.0	137.4	137.8	138.3	1131
1132	130.8	131.0	131.2	131.5	131.7	132.0	132.3	132.6	132.9	133.2	133.5	133.8	134.1	134.5	134.8	135.2	135.6	135.9	136.3	136.7	137.1	137.5	138.0	138.4	138.8	139.3	1132
1133	131.8	132.0	132.2	132.5	132.7	133.0	133.3	133.6	133.9	134.2	134.5	134.8	135.1	135.5	135.8	136.2	136.6	136.9	137.3	137.7	138.1	138.5	139.0	139.4	139.8	140.3	1133
1134	132.8	133.0	133.2	133.5	133.7	134.0	134.3	134.6	134.9	135.2	135.5	135.8	136.2	136.5	136.8	137.2	137.6	137.9	138.3	138.7	139.1	139.6	140.0	140.4	140.9	141.3	1134
1135	133.8	134.0	134.2	134.5	134.7	135.0	135.3	135.6	135.9	136.2	136.5	136.8	137.2	137.5	137.8	138.2	138.6	139.0	139.4	139.8	140.2	140.6	141.0	141.4	141.9	142.3	1135
1136	134.8	135.0	135.2	135.5	135.7	136.0	136.3	136.6	136.9	137.2	137.5	137.8	138.2	138.5	138.9	139.2	139.6	140.0	140.4	140.8	141.2	141.6	142.0	142.4	142.9	143.3	1136
1137	135.8	136.0	136.2	136.5	136.7	137.0	137.3	137.6	137.9	138.2	138.5	138.8	139.2	139.5	139.9	140.2	140.6	141.0	141.4	141.8	142.2	142.6	143.0	143.5	143.9	144.4	1137
1138	136.8	137.0	137.2	137.5	137.7	138.0	138.3	138.6	138.9	139.2	139.5	139.8	140.2	140.5	140.9	141.2	141.6	142.0	142.4	142.8	143.2	143.6	144.0	144.5	144.9	145.4	1138
1139	137.7	138.0	138.2	138.5	138.7	139.0	139.3	139.6	139.9	140.2	140.5	140.9	141.2	141.5	141.9	142.2	142.6	143.0	143.4	143.8	144.2	144.6	145.1	145.5	145.9	146.4	1139
1140	138.7	139.0	139.2	139.5	139.7	140.0	140.3	140.6	140.9	141.2	141.5	141.9	142.2	142.5	142.9	143.2	143.6	144.0	144.4	144.8	145.2	145.6	146.1	146.5	146.9	147.4	1140
1141	139.7	140.0	140.2	140.4	140.7	141.0	141.3	141.6	141.9	142.2	142.5	142.9	143.2	143.5	143.9	144.3	144.6	145.0	145.4	145.8	146.2	146.6	147.1	147.5	148.0	148.4	1141
1142	140.7	140.9	141.2	141.4	141.7	142.0	142.3	142.6	142.9	143.2	143.5	143.9	144.2	144.6	144.9	145.3	145.6	146.0	146.4	146.8	147.2	147.6	148.1	148.5	149.0	149.4	1142
1143	141.7	141.9	142.2	142.4	142.7	143.0	143.3	143.6	143.9	144 2	144.5	144.9	145.2	145.6	145.9	146.3	146.7	147.0	147.4	147.8	148.3	148.7	149.1	149.5	150.0	150.5	1143
1144	142.7	142.9	143.2	143.4	143.7	144.0	144.3	144.6	144.9	145.2	145.5	145.9	146.2	146.6	146.9	147.3	147.7	148.0	148.4	148.9	149.3	149.7	150.1	150.6	151.0	151.5	1144
1145	143.7	143.9	144.2	144.4	144.7	145.0	145.3	145.6	145.9	146.2	146.5	146.9	147.2	147.6	147.9	148.3	148.7	149.1	149.5	149.9	150.3	150.7	151.1	151.6	152.0	152.5	1145
1146	144.7	144.9	145.2	145.4	145.7	146.0	146.3	146.6	146.9	147.2	147.5	147.9	148.2	148.6	148.9	149.3	149.7	150.1	150.5	150.9	151.3	151.7	152.1	152.6	153.0	153.5	1146
1147	145.7	145.9	146.2	146.4	146.7	147.0	147.3	147.6	147.9	148.2	148.5	148.9	149.2	149 6	149.9	150.3	150.7	151.1	151.5	151.9	152.3	152.7	153.2	153.6	154.1	154.5	1147
1148	146.7	146.9	147.2	147.4	147.7	148.0	148.3	148.6	148.9	149.2	149.6	149.9	150.2	150.6	150.9	151.3	151.7	152.1	152.5	152.9	153.3	153.7	154.2	154.6	155.1	155.5	1148
1149	147.7	147.9	148.2	148.4	148.7	149.0	149.3	149.6	149.9	150.2	150.6	150.9	151.3	151.6	152.0	152.3	152.7	153.1	153.5	153.9	154.3	154.8	155.2	155.6	156.1	156.5	1149
1150	148.7	148.9	149.2	149.4	149.7	150.0	150.3	150.6	150.9	151.2	151.6	151.9	152.3	152.6	153.0	153.3	153.7	154.1	154.5	154.9	155.3	155.8	156.2	156.7	157.1	157.6	1150
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

TABLE III.—(Concluded.)

APPARENT GRAVITY.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1130	137.2	137.7	138.2	138.6	139.1	139.6	140.1	140.6	141.2	141.7	142.2	142.8	143.3	143.9	144.5	145.1	145.7	146.3	146.9	147.5	148.1	148.8	149.4	150.1	150.8	151.5	1130
1131	138.3	138.7	139.2	139.7	140.1	140.6	141.1	141.6	142.2	142.7	143.2	143.8	144.3	144.9	145.5	146.1	146.7	147.3	147.9	148.5	149.2	149.8	150.5	151.1	151.8	152.5	1131
1132	139.3	139.7	140.2	140.7	141.2	141.7	142.2	142.7	143.2	143.7	144.3	144.8	145.4	145.9	146.5	147.1	147.7	148.3	148.9	149.6	150.2	150.9	151.5	152.2	152.9	153.5	1132
1133	140.3	140.7	141.2	141.7	142.2	142.7	143.2	143.7	144.2	144.8	145.3	145.8	146.4	147.0	147.5	148.1	148.7	149.3	150.0	150.6	151.2	151.9	152.5	153.2	153.9	154.6	1133
1134	141.3	141.8	142.2	142.7	143.2	143.7	144.2	144.7	145.2	145.8	146.3	146.9	147.4	148.0	148.6	149.2	149.8	150.4	151.0	151.6	152.3	152.9	153.6	154.2	154.9	155.6	1134
1135	142.3	142.8	143.2	143.7	144.2	144.7	145.2	145.7	146.3	146.8	147.3	147.9	148.4	149.0	149.6	150.2	150.8	151.4	152.0	152.7	153.3	154.0	154.6	155.3	156.0	156.7	1135
1136	143.3	143.8	144.3	144.8	145.2	145.7	146.2	146.7	147.3	147.8	148.4	148.9	149.5	150.0	150.6	151.2	151.8	152.4	153.1	153.7	154.3	155.0	155.6	156.3	157.0	157.7	1136
1137	144.4	144.8	145.3	145.8	146.3	146.8	147.3	147.8	148.3	148.8	149.4	149.9	150.5	151.1	151.7	152.3	152.9	153.5	154.1	154.7	155.4	156.0	156.7	157.4	158.0	158.7	1137
1138	145.4	145.8	146.3	146.8	147.3	147.8	148.3	148.8	149.3	149.9	150.4	151.0	151.5	152.1	152.7	153.3	153.9	154.5	155.1	155.8	156.4	157.1	157.7	158.4	159.1	159.8	1138
1139	146.4	146.8	147.3	147.8	148.3	148.8	149.3	149.8	150.3	150.9	151.4	152.0	152.5	153.1	153.7	154.3	154.9	155.5	156.2	156.8	157.4	158.1	158.8	159.4	160.1	160.8	1139
1140	147.4	147.9	148.3	148.8	149.3	149.8	150.3	150.8	151.4	151.9	152.5	153.0	153.6	154.1	154.7	155.3	155.9	156.6	157.2	157.8	158.5	159.1	159.8	160.5	161.1	161.8	1140
1141	148.4	148.9	149.4	149.8	150.3	150.8	151.3	151.9	152.4	152.9	153.5	154.0	154.6	155.2	155.8	156.4	157.0	157.6	158.2	158.9	159.5	160.2	160.8	161.5	162.2	162.9	1141
1142	149.4	149.9	150.4	150.9	151.4	151.8	152.4	152.9	153.4	154 0	154.5	155.1	155.6	156.2	156.8	157.4	158.0	158.6	159.3	159.9	160.5	161.2	161.9	162.5	163.2	163.9	1142
1143	150.5	150.9	151.4	151.9	152.4	152.9	153.4	153.9	154.4	155.0	155.5	156.1	156.6	157.2	157 8	158.4	159.0	159.6	160.3	160.9	161.6	162.2	162.9	163.6	164.2	164.9	1143
1144	151.5	151.9	152.4	152.9	153.4	153.9	154.4	154.9	155.5	156.0	156.5	157.1	157.7	158.2	158.8	159.4	160.1	160.7	161.3	162.0	162.6	163.3	163.9	164.6	165.3	166.0	1144
1145	152.5	152.9	153.4	153.9	154.4	154.9	155.4	155.9	156.5	157.0	157.6	158.1	158.7	159 3	159.9	160.5	161.1	161.7	162.3	163.0	163.6	164.3	164.9	165.6	166.3	167.0	1145
1146	153.5	154.0	154.5	154.9	155.4	155.9	156.5	157.0	157.5	158.0	158.6	159.2	159.7	160.3	160.9	161.5	162.1	162.7	163.4	164.0	164.7	165.3	166.0	166.7	167.4	168.1	1146
1147	154.5	155.0	155.5	156.0	156.5	157.0	157.5	158.0	158.5	159.1	159.6	160.2	160.8	161.3	161.9	162.5	163.1	163.8	164.4	165.0	165.7	166.4	167.0	167.7	168.4	169.1	1147
1148	155.5	156.0	156.5	157.0	157.5	158.0	158.5	159.0	159.5	160.1	160.6	161.2	161.8	162.4	162.9	163.5	164.2	164.8	165.4	166.1	166.7	167.4	168.0	168.7	169.4	170.1	1148
1149	156.5	157.0	157.5	158.0	158.5	159.0	159.5	160.0	160.6	161.1	161.7	162.2	162.8	163.4	164.0	164.6	165.2	165.8	166.5	167.1	167.8	168.4	169.1	169.8	170.5	171.2	1149
1150	157.6	158.0	158.5	159.0	159.5	160.0	160.5	161.1	161.6	162.1	162.7	163.3	163.8	164.4	165.0	165.6	166.2	166.9	167.5	168.1	168.8	169.4	170.1	170.8	171.5	172.2	1150
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

TABLE IV.

EXHIBITING

THE CONCENTRATED VALUES

OF

WORTS

FOR EACH

DEGREE OF SPECIFIC GRAVITY.

SPECIFIC GRAVITY.	EXCESS in the WEIGHT of a BEER BARREL of WORT above that of WATER	SOLID EXTRACT, or the true "lbs. Weight." Per BEER BARREL.	BEER GALLON.	WINE GALLON.	IMPERL GALLON.	PROPORTION of SOLID EXTRACT by WEIGHT.	DEGREES OF GRAVITY.
1001	.36	.94	.026	.021	.026	.0026	1
1002	.73	1.88	.052	.043	.052	.0051	2
1003	1.10	2.83	.079	.064	.077	.0077	3
1004	1.46	3.77	.105	.086	.103	.0102	4
1005	1.83	4.71	.131	.107	.129	.0128	5
1006	2.20	5.65	.157	.129	.155	.0153	6
1007	2.56	6.60	.183	.150	.181	.0179	7
1008	2.93	7.54	.210	.172	.206	.0204	8
1009	3.30	8.49	.236	.193	.232	.0230	9
1010	3.66	9.43	.262	.215	.258	.0255	10
1011	4.03	10.38	.288	.236	.284	.0280	11
1012	4.39	11.32	.314	.258	.310	.0306	12
1013	4.76	12.27	.341	.279	.335	.0331	13
1014	5.13	13.21	.367	.301	.361	.0356	14
1015	5.49	14.16	.393	.322	.387	.0381	15
1016	5.86	15.11	.419	.344	.413	.0406	16
1017	6.22	16.05	.446	.365	.439	.0431	17
1018	6.59	17.00	.472	.387	.464	.0456	18
1019	6.96	17.94	.499	.408	.490	.0481	19
1020	7.32	18.89	.525	.430	.516	.0506	20
1021	7.69	19.84	.551	.451	.542	.0531	21
1022	8.06	20.78	.577	.473	.568	.0555	22
1023	8.42	21.73	.604	.494	.593	.0580	23
1024	8.79	22.67	.630	.516	.619	.0605	24
1025	9.15	23.62	.656	.537	.645	.0629	25
1026	9.52	24.57	.682	.559	.671	.0654	26
1027	9.89	25.52	.709	.580	.697	.0678	27
1028	10.25	26.46	.735	.602	.723	.0703	28
1029	10.62	27.41	.762	.623	.749	.0727	29
1030	10.99	28.36	.788	.645	.775	.0752	30

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SPECIFIC GRAVITY.	EXCESS in the WEIGHT of a BEER BARREL of WORT above that of WATER	SOLID EXTRACT, or the true "lbs. Weight." Per BEER BARREL.	BEER GALLON.	WINE GALLON.	IMPERL GALLON.	PROPORTION of SOLID EXTRACT by WEIGHT.	DEGREES of GRAVITY.
1030	10.99	28.36	.788	.645	.775	.0752	30
1031	11.35	29.31	.814	.667	.801	.0776	31
1032	11.72	30.26	.840	.688	.827	.0800	32
1033	12.08	31.20	.867	.710	.852	.0825	33
1034	12.45	32.15	.893	.731	.878	.0849	34
1035	12.82	33.10	.919	.753	.904	.0873	35
1036	13.18	34.05	.945	.775	.930	.0897	36
1037	13.55	35.00	.972	.796	.956	.0921	37
1038	13.91	35.94	.998	.818	.981	.0945	38
1039	14.28	36.89	1.025	.839	1.007	.0969	39
1040	14.65	37.84	1.051	.861	1.033	.0993	40
1041	15.01	38.79	1.077	.883	1.059	.1017	41
1042	15.38	39.74	1.104	.904	1.085	.1041	42
1043	15.75	40.68	1.130	.926	1.111	.1065	43
1044	16.11	41.63	1.157	.947	1.137	.1089	44
1045	16.48	42.58	1.183	.969	1.163	.1113	45
1046	16.84	43.53	1.209	.991	1.189	.1136	46
1047	17.21	44.48	1.236	1.012	1.215	.1160	47
1048	17.58	45.43	1.262	1.034	1.241	.1184	48
1049	17.94	46.38	1.289	1.055	1.267	.1207	49
1050	18.31	47.33	1.315	1.077	1.293	.1231	50
1051	18.68	48.28	1.341	1.099	1.319	.1254	51
1052	19.04	49.23	1.368	1.120	1.345	.1278	52
1053	19.41	50.18	1.394	1.142	1.370	.1301	53
1054	19.77	51.13	1.421	1.163	1.396	.1325	54
1055	20.14	52.08	1.447	1.185	1.422	.1348	55
1056	20.51	53.03	1.473	1.207	1.448	.1372	56
1057	20.87	53.98	1.500	1.228	1.474	.1395	57
1058	21.24	54.93	1.526	1.250	1.500	.1418	58
1059	21.61	55.88	1.553	1.271	1.526	.1441	59
1060	21.97	56.83	1.579	1.293	1.552	.1464	60
1061	22.34	57.78	1.605	1.315	1.578	.1487	61
1062	22.70	58.73	1.632	1.336	1.604	.1510	62
1063	23.07	59.68	1.658	1.358	1.630	.1533	63
1064	23.44	60.63	1.685	1.379	1.656	.1556	64
1065	23.80	61.58	1.711	1.401	1.682	.1579	65
1066	24.17	62.53	1.737	1.423	1.708	.1602	66
1067	24.53	63.48	1.764	1.444	1.734	.1625	67
1068	24.90	64.44	1.790	1.466	1.760	.1647	68
1069	25.27	65.39	1.817	1.487	1.786	.1670	69
1070	25.63	66.34	1.843	1.509	1.812	.1693	70

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SPECIFIC GRAVITY.	EXCESS in the WEIGHT of a BEER BARREL of WORT above that of WATER	SOLID EXTRACT, or the true "lbs. Weight." Per BEER BARREL.	BEER GALLON.	WINE GALLON.	IMPERL GALLON.	PROPORTION of SOLID EXTRACT by WEIGHT.	DEGREES of GRAVITY.
1070	25.63	66.34	1.843	1.509	1.812	.1693	70
1071	26.00	67.29	1.869	1.531	1.838	.1716	71
1072	26.37	68.24	1.896	1.553	1.864	.1738	72
1073	26.73	69.20	1.922	1.574	1.889	.1761	73
1074	27.10	70.15	1.949	1.596	1.915	.1783	74
1075	27.46	71.10	1.975	1.618	1.941	.1806	75
1076	27.83	72.05	2.001	1.640	1.967	.1828	76
1077	28.20	73.00	2.028	1.661	1.993	.1851	77
1078	28.56	73.96	2.054	1.683	2.019	.1873	78
1079	28.93	74.91	2.081	1.704	2.045	.1896	79
1080	29.29	75.86	2.107	1.726	2.071	.1918	80
1081	29.66	76.81	2.133	1.748	2.097	.1941	81
1082	30.03	77.76	2.160	1.769	2.123	.1963	82
1083	30.39	78.72	2.186	1.791	2.149	.1985	83
1084	30.76	79.67	2.213	1.812	2.175	.2007	84
1085	31.13	80.62	2.239	1.834	2.201	.2029	85
1086	31.49	81.57	2.266	1.856	2.227	.2051	86
1087	31.86	82.53	2.292	1.878	2.253	.2073	87
1088	32.22	83.48	2.319	1.899	2.280	.2095	88
1089	32.59	84.44	2.345	1.921	2.306	.2117	89
1090	32.96	85.39	2.372	1.943	2.332	.2139	90
1091	33.32	86.34	2.399	1.965	2.358	.2161	91
1092	33.69	87.30	2.425	1.987	2.384	.2183	92
1093	34.06	88.25	2.452	2.008	2.411	.2205	93
1094	34.42	89.21	2.478	2.030	2.437	.2227	94
1095	34.79	90.16	2.505	2.052	2.463	.2249	95
1096	35.15	91.12	2.531	2.074	2.489	.2270	96
1097	35.52	92.07	2.558	2.095	2.515	.2292	97
1098	35.89	93.03	2.584	2.117	2.541	.2314	98
1099	36.25	93.98	2.611	2.138	2.567	.2335	99
1100	36.62	94.94	2.637	2.160	2.593	.2357	100
1101	36.99	95.90	2.664	2.182	2.619	.2378	101
1102	37.35	96.85	2.690	2.204	2.645	.2400	102
1103	37.72	97.81	2.717	2.225	2.671	.2421	103
1104	38.08	98.76	2.743	2.247	2.697	.2443	104
1105	38.45	99.72	2.770	2.269	2.723	.2464	105
1106	38.82	100.68	2.797	2.291	2.749	.2486	106
1107	39.19	101.64	2.823	2.313	2.775	.2507	107
1108	39.55	102.59	2.850	2.334	2.802	.2529	108
1109	39.92	103.55	2.876	2.356	2.828	.2550	109
1110	40.28	104.51	2.903	2.378	2.854	.2571	110

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SPECIFIC GRAVITY.	EXCESS in the WEIGHT of a BEER BARREL of WORT above that of WATER	SOLID EXTRACT, or the true "lbs. Weight." Per BEER BARREL.	BEER GALLON.	WINE GALLON.	IMPERL GALLON.	PROPORTION of SOLID EXTRACT by WEIGHT.	DEGREES OF GRAVITY.
1110	40.28	104.51	2.903	2.378	2.854	.2571	110
1111	40.65	105.47	2.930	2.400	2.880	.2593	111
1112	41.01	106.43	2.956	2.422	2.906	.2614	112
1113	41.38	107.38	2.983	2.443	2.933	.2635	113
1114	41.75	108.34	3.009	2.465	2.959	.2656	114
1115	42.11	109.30	3.036	2.487	2.985	.2677	115
1116	42.48	110.26	3.063	2.509	3.011	.2698	116
1117	42.84	111.22	3.090	2.531	3.037	.2719	117
1118	43.21	112.17	3.116	2.552	3.064	.2740	118
1119	43.58	113.13	3.143	2.574	3.090	.2761	119
1120	43.94	114.09	3.170	2.596	3.116	.2782	120
1121	44.31	115.05	3.197	2.618	3.142	.2803	121
1122	44.68	116.01	3.223	2.640	3.168	.2824	122
1123	45.04	116.97	3.250	2.661	3.195	.2845	123
1124	45.41	117.93	3.276	2.683	3.221	.2865	124
1125	45.77	118.89	3.303	2.705	3.247	.2886	125
1126	46.14	119.85	3.330	2.727	3.273	.2907	126
1127	46.51	120.81	3.356	2.749	3.299	.2927	127
1128	46.87	121.77	3.383	2.770	3.326	.2948	128
1129	47.24	122.73	3.409	2.792	3.352	.2969	129
1130	47.60	123.69	3.436	2.814	3.378	.2989	130
1131	47.97	124.65	3.463	2.836	3.404	.3010	131
1132	48.34	125.61	3.490	2.858	3.430	.3030	132
1133	48.70	126.58	3.516	2.880	3.457	.3051	133
1134	49.07	127.54	3.543	2.902	3.483	.3071	134
1135	49.44	128.50	3.570	2.924	3.509	.3092	135
1136	49.80	129.46	3.597	2.946	3.535	.3112	136
1137	50.17	130.42	3.623	2.968	3.561	.3132	137
1138	50.53	131.39	3.650	2.989	3.588	.3153	138
1139	50.90	132.35	3.676	3.011	3.614	.3173	139
1140	51.27	133.31	3.703	3.033	3.640	.3193	140
1141	51.63	134.27	3.730	3.055	3.666	.3214	141
1142	52.00	135.23	3.757	3.077	3.693	.3234	142
1143	52.37	136.20	3.783	3.099	3.719	.3254	143
1144	52.73	137.16	3.810	3.121	3.746	.3274	144
1145	53.10	138.12	3.837	3.143	3.772	.3294	145
1146	53.46	139.08	3.864	3.165	3.798	.3314	146
1147	53.83	140.05	3.890	3.187	3.824	.3334	147
1148	54.20	141.01	3.917	3.208	3.851	.3354	148
1149	54.56	141.98	3.943	3.230	3.877	.3374	149
1150	54.93	142.94	3.970	3.252	3.903	.3394	150

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TABLE V.

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TABLE V.

This Table is for the purpose of ascertaining the true Bulk or Measure of Wort at 60° from any Measure taken at a Temperature differing therefrom: if, therefore, the gauged contents of any Vessel of Wort *above* 60° Temperature be multiplied by its corresponding Factor in this Table, the product *deducted* from such gauged contents will give the true contents at 60°: and if the Temperature of the Wort be *below* 60°, *such* product *added* to the gauged contents will give the true contents at 60°.

EXAMPLE.

If the gauged contents of a Vessel of Wort, of any Specific Gravity falling between 1070 and 1080, be taken at 104° Temperature and found to be 3450 gallons; this gauge, multplied by the Factor .0080 (between 1070 and 1080 Spec. Grav. in the Column for 104° Temperature) gives the product 27.6, which, being deducted from 3450, leaves 3422.4 gallons, the true contents at 60°.

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TABLE V.—For reducing the GAUGED BULK or MEASURE of WORT to the TRUE BULK at 60° Temperature.

Spec. Grav.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									Deg. of Grav.
	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	
1000	.0008	.0007	.0006	.0004	.0002	—	.0003	.0005	.0008	.0010	.0013	.0016	.0019	.0022	.0025	.0028	.0032	.0035	.0038	.0042	.0045	.0049	.0053	.0057	.0060	.0064	0
1010	.0009	.0007	.0006	.0004	.0002	—	.0003	.0005	.0008	.0011	.0013	.0016	.0019	.0022	.0026	.0029	.0032	.0035	.0039	.0042	.0046	.0050	.0053	.0057	.0061	.0065	10
1020	.0009	.0008	.0006	.0004	.0002	—	.0003	.0005	.0008	.0011	.0014	.0017	.0020	.0023	.0026	.0029	.0033	.0036	.0039	.0043	.0047	.0050	.0054	.0058	.0062	.0066	20
1030	.0010	.0008	.0006	.0005	.0002	—	.0003	.0005	.0008	.0011	.0014	.0017	.0020	.0023	.0026	.0030	.0033	.0036	.0040	.0044	.0047	.0051	.0055	.0059	.0063	.0067	30
1040	.0010	.0009	.0007	.0005	.0002	—	.0003	.0005	.0008	.0011	.0014	.0017	.0020	.0023	.0027	.0030	.0034	.0037	.0041	.0044	.0048	.0052	.0056	.0060	.0064	.0068	40
1050	.0011	.0009	.0007	.0005	.0003	—	.0003	.0005	.0008	.0011	.0014	.0017	.0021	.0024	.0027	.0031	.0034	.0037	.0041	.0045	.0049	.0052	.0056	.0060	.0065	.0069	50
1060	.0011	.0009	.0007	.0005	.0003	—	.0003	.0006	.0009	.0012	.0015	.0018	.0021	.0024	.0028	.0031	.0035	.0038	.0042	.0046	.0049	.0053	.0057	.0061	.0066	.0070	60
1070	.0012	.0010	.0007	.0005	.0003	—	.0003	.0006	.0009	.0012	.0015	.0018	.0021	.0025	.0028	.0032	.0035	.0039	.0043	.0047	.0050	.0054	.0058	.0062	.0067	.0071	70
1080	.0012	.0010	.0008	.0005	.0003	—	.0003	.0006	.0009	.0012	.0015	.0018	.0022	.0025	.0029	.0032	.0036	.0040	.0043	.0047	.0051	.0055	.0059	.0063	.0068	.0072	80
1090	.0012	.0010	.0008	.0006	.0003	—	.0003	.0006	.0009	.0012	.0015	.0019	.0022	.0026	.0029	.0033	.0036	.0040	.0044	.0048	.0052	.0056	.0060	.0064	.0068	.0073	90
1100	.0013	.0011	.0008	.0006	.0003	—	.0003	.0006	.0009	.0012	.0016	.0019	.0022	.0026	.0029	.0033	.0037	.0041	.0044	.0048	.0052	.0057	.0061	.0065	.0069	.0074	100
1110	.0013	.0011	.0009	.0006	.0003	—	.0003	.0006	.0009	.0013	.0016	.0019	.0023	.0026	.0030	.0033	.0037	.0041	.0045	.0049	.0053	.0057	.0061	.0066	.0070	.0075	110
1120	.0014	.0011	.0009	.0006	.0003	—	.0003	.0006	.0010	.0013	.0016	.0019	.0023	.0027	.0030	.0034	.0038	.0042	.0046	.0050	.0054	.0058	.0062	.0066	.0071	.0075	120
1130	.0014	.0012	.0009	.0006	.0003	—	.0003	.0006	.0010	.0013	.0016	.0020	.0023	.0027	.0031	.0034	.0038	.0042	.0046	.0050	.0054	.0059	.0063	.0067	.0072	.0076	130
1140	.0015	.0012	.0009	.0006	.0003	—	.0003	.0006	.0010	.0013	.0017	.0020	.0024	.0027	.0031	.0035	.0039	.0043	.0047	.0051	.0055	.0059	.0064	.0068	.0072	.0077	140
1150																											150
TEMP.	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	92°	94°	96°	98°	100°	TEMP.

TABLE V.—(Continued.)

Spec. Grav.	TEMPERATURE of the WORT by Fahrenheit's THERMOMETER.																									Deg. of Grav.
	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	
1000	.0064	.0068	.0073	.0077	.0081	.0086	.0090	.0095	.0099	.0104	.0109	.0114	.0119	.0124	.0129	.0134	.0139	.0144	.0150	.0155	.0161	.0166	.0172	.0178	.0184	.0190	0
1010	.0065	.0069	.0074	.0078	.0082	.0087	.0091	.0096	.0100	.0105	.0110	.0115	.0120	.0125	.0130	.0135	.0141	.0146	.0151	.0157	.0162	.0168	.0174	.0180	.0186	.0192	10
1020	.0066	.0070	.0074	.0079	.0083	.0088	.0092	.0097	.0102	.0106	.0111	.0116	.0121	.0126	.0131	.0137	.0142	.0147	.0153	.0158	.0164	.0170	.0176	.0181	.0187	.0193	20
1030	.0067	.0071	.0075	.0080	.0084	.0089	.0093	.0098	.0103	.0107	.0112	.0117	.0122	.0127	.0133	.0138	.0143	.0149	.0154	.0160	.0166	.0171	.0177	.0183	.0189	.0195	30
1040	.0068	.0072	.0076	.0081	.0085	.0090	.0094	.0099	.0104	.0109	.0114	.0119	.0124	.0129	.0134	.0139	.0145	.0150	.0156	.0162	.0167	.0173	.0179	.0185	.0191	.0197	40
1050	.0069	.0073	.0077	.0082	.0086	.0091	.0095	.0100	.0105	.0110	.0115	.0120	.0125	.0130	.0136	.0141	.0146	.0152	.0157	.0163	.0169	.0175	.0181	.0187	.0193	.0199	50
1060	.0070	.0074	.0078	.0083	.0087	.0092	.0097	.0101	.0106	.0111	.0116	.0121	.0126	.0132	.0137	.0142	.0148	.0153	.0159	.0165	.0170	.0176	.0182	.0188	.0194	.0200	60
1070	.0071	.0075	.0080	.0084	.0089	.0093	.0098	.0103	.0108	.0113	.0118	.0123	.0128	.0133	.0138	.0144	.0149	.0155	.0160	.0166	.0172	.0178	.0184	.0190	.0196	.0202	70
1080	.0072	.0076	.0081	.0085	.0090	.0094	.0099	.0104	.0109	.0114	.0119	.0124	.0129	.0134	.0140	.0145	.0151	.0156	.0162	.0168	.0173	.0179	.0185	.0191	.0198	.0204	80
1090	.0073	.0077	.0082	.0086	.0091	.0095	.0100	.0105	.0110	.0115	.0120	.0125	.0130	.0136	.0141	.0147	.0152	.0158	.0163	.0169	.0175	.0181	.0187	.0193	.0199	.0205	90
1100	.0074	.0078	.0083	.0087	.0092	.0097	.0101	.0106	.0111	.0116	.0121	.0127	.0132	.0137	.0143	.0148	.0154	.0159	.0165	.0171	.0176	.0182	.0188	.0195	.0201	.0207	100
1110	.0075	.0079	.0084	.0088	.0093	.0098	.0103	.0107	.0112	.0118	.0123	.0128	.0133	.0139	.0144	.0150	.0155	.0161	.0166	.0172	.0178	.0184	.0190	.0196	.0202	.0209	110
1120	.0075	.0080	.0084	.0089	.0094	.0099	.0104	.0109	.0114	.0119	.0124	.0129	.0135	.0140	.0145	.0151	.0156	.0162	.0168	.0174	.0180	.0186	.0192	.0198	.0204	.0210	120
1130	.0076	.0081	.0085	.0090	.0095	.0100	.0105	.0110	.0115	.0120	.0125	.0130	.0136	.0141	.0147	.0152	.0158	.0164	.0169	.0175	.0181	.0187	.0193	.0199	.0205	.0212	130
1140	.0077	.0081	.0086	.0091	.0096	.0101	.0106	.0111	.0116	.0121	.0126	.0131	.0137	.0042	.0148	.0153	.0159	.0165	.0170	.0176	.0182	.0188	.0194	.0201	.0207	.0213	140
1150																											150
TEMP.	100°	102°	104°	106°	108°	110°	112°	114°	116°	118°	120°	122°	124°	126°	128°	130°	132°	134°	136°	138°	140°	142°	144°	146°	148°	150°	TEMP.

TABLE VI.

This Table contains the necessary Corrections for the Apparent Gravity of the Wash or Wort when fermented; these, being the allowances to be made on account of Temperature, in this respect resemble the corrections in Tables I. and II. and are to be ascertained in the same manner, with this difference only, that instead of the Correction being found opposite the Apparent Gravity indicated by the Instrument, it must be sought for opposite the original Specific Gravity of the Wort.

EXAMPLE.

Suppose the Apparent Gravity of the Wash, as shown by the Saccharometer, to be 996.4 at the Temperature of 76°, and the Specific Gravity of its original Wort to have been 1055; opposite this Specific Gravity (which falls between 1050 and 1060) under 76° Temperature will be had the Correction 1.6; which, added to the Apparent Gravity 996.4 gives 998 for the Specific Gravity of the Wash.

TABLE VII.

This Table is for the purpose of conveniently estimating the value of Low Wines also by the Saccharometer: it contains a set of Factors expressing the proportion of Proof Spirit in any measure of the Sample, so that such measure being multiplied by its corresponding Factor, the product will be the equivalent measure of Proof Spirit. If the decimal point be removed two places to the right, and the Factor so altered be deducted from 100, the difference will express the strength of the Sample in the more familar expression, "Under Proof."

EXAMPLE.

If the Apparent Gravity of a sample of Low Wines at the Temperature 68° be 973, opposite such Apparent Gravity and under 68° Temperature will be found the Factor .378, if then the quantity or measure of the Sample were 449.9 Gallons, and such quantity be multiplied by the above Factor .378 the product 170 will be the Gallons of Proof Spirit equivalent to, or contained in such sample. And the Factor .378 having its decimal point removed two places to the right, will become 37.8; denoting the gallons of Proof Spirit in 100 gallons of the Sample: this expression deducted from 100, leaves 62.2 per cent. Under Proof, for the strength of the sample according to the usual denomination of the concentrated strength by Sikes's Hydrometer.

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TABLE VI.—For correcting the APPARENT GRAVITY* of the FERMENTED WASH on account of Temperature.

SPECIFIC GRAVITY OF THE WORT.	TEMPERATURE of the WASH by Fahrenheit's THERMOMETER.																									SPECIFIC GRAVITY OF THE WORT.
	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	
1000																											1000
1020	–.5	–.5	–.5	–.5	–.4	–.4	–.3	–.2	–.2	–.1	—	.1	.3	.4	.6	.8	1.0	1.2	1.4	1.6	1.9	2.1	2.4	2.6	2.9	3.2	1020
1030	–.6	–.6	–.6	–.5	–.5	–.4	–.3	–.3	–.2	–.1	—	.1	.3	.5	.6	.8	1.0	1.2	1.5	1.7	1.9	2.2	2.5	2.7	3.0	3.3	1030
1040	–.6	–.6	–.6	–.6	–.5	–.5	–.4	–.3	–.2	–.1	—	.1	.3	.5	.7	.9	1.1	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.1	3.4	1040
1050	–.7	–.7	–.7	–.7	–.6	–.5	–.4	–.3	–.2	–.1	—	.2	.3	.5	.7	.9	1.1	1.4	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	1050
1060	–.8	–.8	–.8	–.7	–.6	–.6	–.5	–.4	–.2	–.1	—	.2	.3	.5	.7	1.0	1.2	1.4	1.7	1.9	2.2	2.5	2.7	3.0	3.4	3.7	1060
1070	–.9	–.9	–.8	–.8	–.7	–.6	–.5	–.4	–.3	–.1	—	.2	.4	.6	.8	1.0	1.2	1.5	1.7	2.0	2.3	2.6	2.9	3.2	3.5	3.8	1070
1080	–1.0	–1.0	–1.0	–.9	–.8	–.7	–.6	–.5	–.3	–.2	—	.2	.4	.6	.8	1.1	1.3	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.6	4.0	1080
1090	–1.2	–1.2	–1.1	–1.0	–.9	–.8	–.7	–.5	–.4	–.2	—	.2	.4	.6	.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.5	3.8	4.2	1090
1100	–1.4	–1.3	–1.3	–1.2	–1.0	–.9	–.8	–.6	–.4	–.2	—	.2	.4	.7	.9	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.3	3.6	4.0	4.3	1100
1110	–1.6	–1.5	–1.4	–1.3	–1.2	–1.0	–.9	–.7	–.5	–.2	—	.2	.5	.7	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.1	3.4	3.8	4.1	4.5	1110
1120	–1.8	–1.7	–1.6	–1.5	–1.4	–1.2	–1.0	–.7	–.5	–.2	—	.2	.5	.8	1.0	1.3	1.6	1.9	2.2	2.5	2.9	3.2	3.6	3.9	4.3	4.7	1120
TEMPERATR.	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	TEMPERATR.

* See Note to Table I.

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TABLE VII.—for ascertaining the Value of LOW WINES by the SACCHAROMETER.

APPARENT GRAVITY.	TEMPERATURE of the LOW WINES by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	
970	.524	.516	.508	.501	.494	.488	.481	.474	.467	.460	.453	.446	.439	.432	.426	.419	.413	.407	.400	.394	.387	.381	.375	.369	.363	.357	970
971	.504	.497	.489	.482	.475	.469	.463	.457	.450	.443	.436	.429	.423	.416	.410	.404	.397	.391	.385	.379	.373	.367	.361	.355	.349	.343	971
972	.484	.477	.470	.463	.457	.451	.445	.439	.432	.425	.419	.413	.406	.400	.394	.388	.382	.376	.370	.364	.358	.353	.347	.341	.335	.329	972
973	.464	.457	.451	.444	.438	.432	.426	.420	.414	.408	.402	.396	.389	.383	.378	.372	.366	.361	.355	.350	.344	.338	.332	.326	.321	.315	973
974	.443	.436	.431	.424	.418	.413	.407	.402	.396	.390	.384	.379	.373	.367	.362	.356	.351	.345	.340	.334	.329	.323	.317	.312	.306	.301	974
975	.421	.415	.410	.404	.399	.394	.388	.383	.378	.372	.367	.362	.356	.351	.346	.340	.335	.329	.324	.319	.314	.308	.303	.297	.292	.287	975
976	.399	.394	.389	.384	.379	.374	.370	.365	.360	.355	.350	.345	.339	.334	.329	.324	.319	.314	.309	.304	.299	.293	.288	.283	.277	.272	976
977	.377	.373	.369	.364	.360	.355	.351	.346	.342	.337	.332	.327	.323	.318	.313	.308	.303	.298	.292	.288	.283	.278	.273	.268	.263	.258	977
978	.356	.353	.349	.345	.340	.336	.332	.328	.323	.319	.315	.310	.306	.301	.297	.292	.287	.283	.278	.273	.268	.263	.259	.254	.249	.244	978
979	.335	.332	.328	.325	.321	.317	.313	.310	.306	.302	.298	.294	.289	.285	.281	.276	.272	.267	.263	.258	.254	.249	.245	.240	.235	.230	979
980	.314	.311	.308	.305	.302	.299	.295	.292	.288	.285	.281	.277	.273	.269	.265	.260	.256	.252	.248	.244	.239	.235	.230	.226	.221	.216	980
981	.293	.291	.289	.286	.283	.280	.277	.274	.271	.268	.264	.260	.257	.253	.249	.245	.241	.237	.233	.229	.225	.220	.216	.211	.207	.202	981
982	.274	.272	.270	.267	.265	.262	.260	.257	.254	.251	.248	.244	.241	.237	.234	.230	.226	.222	.218	.214	.210	.206	.201	.197	.193	.188	982
983	.254	.253	.251	.249	.247	.245	.243	.240	.238	.235	.232	.229	.225	.222	.218	.215	.211	.207	.203	.199	.196	.191	.187	.183	.179	.175	983
984	.235	.234	.233	.232	.230	.228	.226	.224	.221	.219	.216	.213	.210	.206	.203	.199	.196	.192	.189	.185	.181	.177	.173	.169	.165	.161	984
985	.217	.216	.215	.214	.213	.211	.209	.207	.205	.203	.200	.197	.194	.191	.188	.184	.181	.178	.174	.171	.167	.163	.159	.155	.151	.147	985
TEMPERATR	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	TEMPERATR

TABLE VII.—(Continued.)

APPARENT GRAVITY.	TEMPERATURE of the LOW WINES by Fahrenheit's THERMOMETER.																									APPARENT GRAVITY.
	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	
985	.217	.216	.215	.214	.213	.211	.209	.207	.205	.203	.200	.197	.194	.191	.188	.184	.181	.178	.174	.171	.167	.163	.159	.155	.151	.147	985
986	.199	.199	.198	.197	.196	.194	.193	.191	.189	.187	.185	.182	.179	.176	.173	.170	.167	.164	.160	.157	.153	.149	.145	.141	.137	.134	986
987	.183	.182	.182	.181	.180	.178	.177	.176	.174	.172	.170	.167	.165	.162	.159	.156	.152	.149	.146	.142	.139	.135	.132	.128	.124	.120	987
988	.166	.166	.165	.165	.164	.163	.162	.160	.159	.157	.155	.152	.150	.147	.144	.141	.138	.135	.132	.129	.126	.122	.119	.115	.111	.107	988
989	.150	.150	.150	.149	.149	.148	.147	.145	.144	.142	.140	.138	.135	.133	.130	.127	.124	.121	.118	.115	.112	.109	.105	.102	.098	.094	989
990	.134	.134	.134	.134	.133	.133	.132	.131	.129	.128	.126	.124	.121	.119	.116	.113	.111	.108	.105	.102	.099	.095	.092	.089	.085	.081	990
991	.119	.120	.120	.120	.119	.118	.117	.116	.115	.114	.112	.110	.107	.105	.102	.100	.097	.095	.092	.089	.086	.083	.079	.076	.073	.069	991
992	.104	.105	.105	.105	.105	.104	.103	.102	.101	.100	.098	.096	.094	.092	.089	.087	.084	.082	.079	.076	.073	.070	.067	.064	.060	.057	992
993	.090	.091	.091	.091	.091	.090	.090	.089	.088	.086	.085	.083	.081	.079	.076	.074	.071	.069	.066	.063	.060	.057	.054	.051	.048	.045	993
994	.077	.077	.078	.078	.078	.077	.077	.076	.075	.073	.072	.070	.068	.066	.063	.061	.059	.056	.054	.051	.048	.046	.043	.040	.036	.033	994
995	.064	.064	.064	.065	.064	.064	.064	.063	.062	.060	.059	.057	.055	.053	.051	.049	.047	.044	.042	.039	.037	.034	.031	.028	.024	.021	995
996	.051	.051	.052	.052	.052	.052	.051	.050	.049	.048	.047	.045	.043	.041	.039	.037	.035	.032	.030	.027	.025	.022	.019	.016	.012	.009	996
997	.039	.039	.040	.040	.040	.040	.039	.038	.037	.036	.035	.033	.031	.029	.027	.025	.023	.020	.018	.015	.013	.010	.007	.004	.001	—	997
998	.026	.027	.027	.028	.028	.028	.027	.026	.025	.024	.023	.021	.019	.017	.015	.013	.011	.009	.006	.004	.002	—	—	—	—	—	998
999	.014	.015	.015	.016	.016	.016	.015	.014	.013	.012	.011	.009	.008	.006	.004	.002	—	—	—	—	—	—	—	—	—	—	999
1000	.003	.004	.004	.004	.004	.004	.004	.003	.002	.001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1000
TEMPERATURE	40°	42°	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°	88°	90°	TEMPERATURE

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